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(54) Crystal structure of dipeptidyl peptidase IV

(57) The present invention relates to crystal structure information obtained from crystals of the dipeptidyl-peptidase DPP-IV, to methods of preparing such crystals, and to their use for the identification and/or design of inhibitors of DPP-IV activity. A further subject matter of the invention are methods for the identification and/or design of inhibitor compounds of DPP-IV activity, the inhibitor compounds of DPP-IV activity identified by these methods and their use in pharmaceutical compositions for the treatment and/or prevention of diseases comprising diabetes types I and II, IGT, obesity and cancer.

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Description

[0001] The present invention relates to crystal structure information obtained from crystals of the dipeptidyl-peptidase DPP-IV, to methods of preparing such crystals, and to their use for the identification and/or design of inhibitors of DPP-IV activity. A further subject matter of the invention are methods for the identification and/or design of inhibitor compounds of DPP-IV activity, the inhibitor compounds of DPP-IV activity identified by these methods and their use in pharmaceutical compositions for the treatment and/or prevention of diseases comprising diabetes types I and II, IGT and obesity.

[0002] Dipeptidyl peptidase (DPP-IV; T-cell activation antigen CD26 or adenosine binding protein) is a multifunctional type II cell surface glycoprotein. The protein is widely expressed in a variety of cell types, particularly on differential epithelial cells of the intestine, liver, prostate tissue, corpus luteum, and kidney proximal tubles (Hartel, S., Gossrau, R., Hanski, C. & Reutter, W. (1988). Dipeptidyl peptidase (DPP) IV in rat organs. Comparison of immunohistochemistry and activity histochemistry. *Histochemistry* 89, 151-161; McCaughan, G.W., Wickson, J.E., Creswick, P.F. & Gorrell, M.D. (1990). Identification of the bile canalicular cell surface molecule GP110 as the ectopeptidase dipeptidyl peptidase IV: an analysis by tissue distribution, purification and N-terminal amino acid sequence. *Hepatology* **11**, 534-544) as well as leukocyte subsets (Gorrell, M.D., Wickson, J. & McCaughan, G.W. (1991). Expression of the rat CD26 antigen (dipeptidyl peptidase IV) on subpopulations of rat lymphocytes. *Cell. Immunol.* **134**, 205-215), such as T-helper lymphocytes, and subsets of macrophages (Bühling, F., Kunz, D., Reinhold, D., Ulmer, A.J., Ernst, M., Flad, H.D. & Ansorge, S. (1994). Expression and functional role of dipeptidyl peptidase IV (CD26) on human natural killer cells. *Nat. Immun.* **13**, 270-279) and a soluble form is reported to be present in plasma and urine (Iwaki-Egawa, S., Watanabe, Y., Kikuya, Y. & Fujimoto, Y. (1998). Dipeptidyl peptidase IV from human serum: purification, characterization, and N-terminal amino acid sequence. J. *Biochem.* **124**, 428-433). Human DPP-IV has a short cytoplasmatic tail of six amino acids, a 22 amino acid hydrophobic transmembrane region and a 738 amino acid extracellular domain with ten potential glycosylation sites (Tanaka, T., Camerini, D., Seed, B., Torimoto, Y., Dang, N.H., Kameoka, J., Dahlberg, H.N., Schlossman, S.F. & Morimoto, C. (1992). Cloning and functional expression of the T cell activation antigen CD26. *J. Immunol.* **149**, 481-486).

[0003] DPP-IV is involved in many biological processes, including a membrane-anchoring function for the localization of the extracellular enzyme adenosine deaminase (ADA) (Franco, R., Valenzuela, A., Lluis, C. & Blanco, J. (1998). Enzymatic and extraenzymatic role of ecto-adenosine deaminase in lymphocytes. *Immunol. Rev.* **161**, 27-42), participation in cell matrix adhesion by binding to collagen and fibronectin (Loster, K., Zeilinger, K., Schuppan, D. & Reutter, W. (1995). The cysteine-rich region of dipeptidyl peptidase IV (CD 26) is the collagen-binding site. *Biochem. Biophys. Res. Commun.* **217**, 341-348), interaction as a co-receptor for the HIV envelope protein gp 120 (Ohtsuki, T., Tsuda, H. & Morimoto, C. (2000). Good or evil: CD26 and HIV Infection. *J. Dermatol. Sci.* **22**, 152-160) and co-stimulatory function during T-cell activation and proliferation (von Bonin, A., Huhn, J. & Fleischer, B. (1998). Dipeptidyl-peptidase IV/CD26 on T cells: analysis of an alternative T-cell activation pathway. *Immunol. Rev.* **161**, 43-53) by interaction with the protein tyrosine phosphatase (CD45) (Torimoto, Y., Dang, N.H., Vivier, E., Tanaka, T., Schlossman, S.F. & Morimoto, C. (1991). Coassociation of CD26 (dipeptidyl peptidase IV) with CD45 on the surface of human T lymphocytes. J. *Immunol.* **147**, 2514-2517).

[0004] DPP-IV (EC 3.4.14.5) has postproline dipeptidyl amino peptidase activity, preferentially cleaving X-proline or X-alanine dipeptides from the N-terminus of polypeptides (Hopsu-Havu, V.K. & Glenner, G.G. (1966). A new dipeptide naphthylamidase hydrolyzing glycyl-prolyl-beta-naphthylamide. *Histochemie* **7**, 197-201.) and belongs to the prolyl oligopeptidase family, a group of atypical serine proteases able to hydrolyse the prolyl bond (Cunningham, D.F. & O'Connor, B. (1997). Proline specific peptidases. *Biochim. Biophys. Acta* **1343**, 160-186). It possesses a novel orientation of its catalytic triad residues (Ser-Asp-His) (Ikehara, Y., Ogata, S. & Misumi, Y. (1994). Dipeptidyl-peptidase IV from rat liver. *Methods Enzymol.* **244**, 215-227.), inverse to that found in classical serine proteases (His-Asp-Ser). The cleavage of N-terminal peptides with Pro in the second position is a rate limiting step in the degradation of peptides. The natural substrates of DPP-IV include several chemokines, cytokines, neuropeptides, circulating hormones and bioactive peptides (Lambeir, A.M., Durinx, C., Proost, P., Van Damme, J., Scharpe, S. & De Meester, I. (2001). Kinetic study of the processing by dipeptidyl-peptidase IV/CD26 of neuropeptides involved in pancreatic insulin secretion. *FEBS Lett.* **507**, 327-330.). The wide range of substrates suggests a key regulatory role in the metabolism of peptide hormones and in amino acid transport (Hildebrandt, M., Reutter, W., Arck, P., Rose, M. & Klapp, B.F. (2000). A guardian angel: the involvement of dipeptidyl peptidase IV in psychoneuroendocrine function, nutrition and immune defence. *Clin Sci* **99**, 93-104). Its physiological relevance has been investigated by (Hinke, S.A., Pospisilik, J.A., Demuth, H.U., Mannhart, S., Kuhn-Wache, K., Hoffmann, T., Nishimura, E., Pederson, R.A. & McIntosh, C.H. (2000). Dipeptidyl peptidase IV (DPIV/CD26) degradation of glucagon. Characterization of glucagon degradation products and DPIV-resistant analogs. *J. Biol. Chem.* **275**, 3827-3834).

[0005] The finding that DPP-IV is responsible for more than 95% of the degradation of GLP-1 led to an elevated interest in inhibition of this enzyme for the treatment of diabetes type II. Experiments in rats and humans have provided

evidence that specific DPP-IV inhibition increased C_{max}, $T_{1/2}$ and total circulating GLP-1 and decreased plasma glucose. It has been demonstrated that patients with impaired glucose-tolerance (IGT), type-II diabetes and with a secondary failure to respond to sulfonylurea treatment benefit from increased levels of GLP peptides. In addition GLP-1 is effective in type-I diabetic patients due to its glucagono-static effect. More recent investigations show a delay of gastric emptying that could have beneficial effects on satiety and might be relevant for the treatment of obesity. Protection of functional GLP-1 by inhibition of DPP-IV and concomitant activation of the GLP-1 receptor might therefore have a synergistic potential in anti-diabetic drug research (Holst, J.J. & Deacon, C.F. (1998). Inhibition of the activity of dipeptidyl-peptidase IV as a treatment for type 2 diabetes. *Diabetes* **47**, 1663-1670.). Selective and orally available small molecule inhibitors of DPP-IV have been discovered and are now in clinical trials (Villhauer, E.B., Brinkman, J. A., Naderi, G.B., Dunning, B.E., Mangold, B.L., Mone, M.D., Russell, M.E., Weldon, S.C. & Hughes, T.E. (2002). 1-[2-[(5-Cyanopyridin-2-yl)amino]ethylamino]acetyl-2-(S)-pyrrolidinecarbon nitrile: a potent, selective, and orally bioavailable dipeptidyl peptidase IV inhibitor with antihyperglycemic properties. J. Med. Chem. **45**, 2362-2365; Pospisilik, J.A., Stafford, S.G., Demuth, H.U., McIntosh, C.H. & Pederson. R.A. (2002). Long-term treatment with dipeptidyl peptidase IV inhibitor improves hepatic and peripheral insulin sensitivity in the VDF zucker rat: a euglycemic-hyperinsulinemic clamp study. *Diabetes* **51**, 2677-2683).

[0006] Therefore, the present invention provides a solution to the problem of identifying and/or designing inhibitors of DPP-IV activity by providing crystals of the extracellular domain of DPP-IV and their crystal structure information, methods of preparing such crystals, and methods of identifying and/or designing inhibitors of DPP-IV with these crystals by structure based drug design.

[0007] The present invention relates to crystal structure information obtained from crystalline preparations of the dipeptidyl-peptidase DPP-IV, to methods of preparing such crystals, and to their use for the identification and/or design of inhibitors of DPP-IV activity. A further subject matter of the invention are methods for the identification and/or design of inhibitor compounds of DPP-IV activity, the inhibitor compounds of DPP-IV activity identified by these methods and their use in pharmaceutical compositions for the treatment and/or prevention of diseases comprising diabetes types I and II, obesity and cancer.

[0008] Figure 1. Sequence alignment of DPP-IV and POP: Amino acid sequence alignment of DPP-IV from human (hDPP-IV) and rat (rDPP-IV, only different residues are shown). The alignment of POP from pork was performed using structural superposition for the α/β-hydrolase domain only, because of a lack of structural homology for the β-propeller domain. The top line gives additional information about the secondary structure of DPP-IV (yellow arrows and red bars), the glycosylation sites with visible electron density (Y), the potential glycosylation sites (marked in red), the disulphide bonds (green lines between cysteins that are involved) and an arrow that indicates the start of the cloned ectodomain. Sequences are highlighted light gray for the transmembrane part, gray for the part of the β-propeller involved in dimerization, green for residues involved in adenosine deaminase binding, blue for the tyrosine that is involved in the stabilization of the oxyanion of the catalytic intermediate and pink for the catalytic residues.

[0009] Figure 2. Overall Structure of DPP-IV: Ribbon diagram of DPP-IV viewed perpendicular to the two-fold axis. The domains are colored dark green and light green for the α/β hydrolase and β-propeller domains of subunit A and dark/light blue for the other subunit, respectively. The overall dimension of the molecule is about 125 x 80 x 60 $Å^3$. The active site is highlighted by the catalytic residues in ball and stick representation as well as residues that are identified by mutagenesis data to be important for ADA binding. The proposed location at the cell surface is shown by the schematic drawing of the membrane. This figure was prepared using Molscript (Kraulis, P.J. (1991). MOLSCRIPT: A program to produce both detailed and schematic plots of protein structures. *J. Applied Crystallogr.* **24**, 946-950) and rendered with Raster3D (Merrit, E.A. & Bacon, D.J. (1997). Raster3D: photorealistic molecular graphics. *Methods Enzymol.* **277**, 505-524).

[0010] Figure 3. Ribbon drawing of the β-propeller domains of DPP-IV and POP: A: DPP-IV has 8 repeats of a structural motif that consists of four antiparallel β-strands or blades (blades are numbered 1 to 8). Additional secondary structural elements are colored magenta: An antiparallel β-sheet (β2/2a and β2/2b in Figure 1) that is an extension of blade 2 with Arg125 at the tip of the turn that is involved in the substrate binding. An α-helix (α2* in Figure 1) with the C-terminal glutamate rich loop that contributes to substrate recognition and specificity (Glu204/205/206). The antiparallel β-sheet that forms a main part of the dimer interface (β1* and β2* in Figure 1). The latter structural elements are extensions of the blade 4.

B: β-propeller domain of DPP-IV rotated 90°

C: POP has 7 blades and no notable deviations from the β-propeller structure. The blades are numbered 1 to 7.

[0011] Figure 4. Access to the active site: Schematic view on the subunit of DPP-IV with the active site surface coloured according to the atom types. The substrate Diprotin A is shown with white carbons indicating the substrate binding site. Arrows illustrate that the substrate may enter the active site at the well accessible and open active site cleft and the dipeptidic product of the catalytic reaction may leave the active site cavity via the more narrow tunnel that is formed by the β-propeller.

[0012] Figure 5. Active site of DPP-IV with Diprotin A (Ile-Pro-Ile): The substrate Diprotin A is trapped as tetrahedral

intermediate covalently bound to the active site Ser630. Dashed lines indicate hydrogen bonds. Bonds are dark blue for the protein and light blue for the ligand as well as the active site Ser630. Drawn with MOLOC (Gerber, P.R. (1992). Peptide mechanics: a force field for peptides and proteins working with entire residues as small unites. *Biopolymers* **32**, 1003-1017).The insert shows the omit electron density (ligand and Ser630 were omitted from the calculations) contoured at 2.5 σ (green) and 4 σ (yellow).

[0013] The present invention relates to crystals of mammalian DPP-IV, with or without a ligand bound in the active site, where the crystals are of sufficient quality and size to allow for the determination of the three-dimensional X-ray diffraction at atomic resolution. The invention also relates to methods for producing and crystallizing the mammalian DPP-IV. The crystals of mammalian DPP-IV, as well as information derived from their crystal structures can be used to analyze and modify mammalian DPP-IV activity as well as to identify compounds that interact with DPP-IV.

[0014] In one aspect the present invention provides a crystal of the extracellular domain of mammalian DPP-IV, preferably having the orthorhombic space group symmetry $P2_12_12_1$ and one homodimer of DPP-IV in the asymmetric unit. Preferably, the crystal includes a unit cell having dimensions a, b, and c; wherein a is from 63Å to 67Å, b is from 66 Å to 70 Å, and c is from 416 Å to 424 Å; and $\alpha = \beta = \gamma = 90°$. Preferably, the crystal includes atoms arranged in a spatial relationship represented by the atomic structure coordinates listed in Table 4. Preferably, the crystal includes DPP-IV comprising the amino acid sequence from Gly31 to Pro766 of the native protein as well as shorter variants thereof comprising all amino acids necessary for forming the active site. Preferably, the crystal includes DPP-IV as set forth in SEQ ID NO:2 as well as shorter variants thereof comprising all amino acids necessary for forming the active site.

[0015] The crystals of the invention include apo crystals and co-crystals. The apo crystals of the invention refer to crystals of mammalian DPP-IV formed without a bound active site or allosteric ligand. The co-crystals generally comprise DPP-IV with a ligand bound to the active site or to an allosteric site. The "active site" refers in general to the site where the enzymatic reaction catalyzed by the enzyme takes place. An active site ligand refers to any compound which specifically binds to the active site of a mammalian DPP-IV.

[0016] Preferably, the co-crystal of the present invention is characterized as having an orthorhombic space group of $P2_12_12_1$ (space group No. 19) and one homodimer of DPP-IV in the asymmetric unit.

[0017] More preferably, the co-crystal has unit cell dimensions of a is from 63 Å to 67Å, b is from 66 Å to 70 Å, and c is from 416 Å to 424 Å.; and $\alpha = \beta = \gamma = 90°$ and a $P2_12_12_1$ symmetry.

[0018] The co-crystals of the invention generally comprise a crystalline DPP-IV polypeptide in association with one or more compounds at an active or allosteric binding site of the polypeptide. The association may be covalent or non-covalent.

[0019] The DPP-IV (dipeptidyl-peptidase, DPP-IV; T-cell activation antigen CD26 or adenosine binding protein) of the present invention may be a mammalian DPP-IV. Preferably, the DPP-IV of the present invention is a human DPP-IV. More preferably, the DPP-IV of the present invention is the extracellular domain of DPP-IV. Even more preferred is the extracellular domain of DPP-IV which is soluble. Most preferably, the human DPP-IV comprises the amino acid sequence from Gly31 to Pro766 of the native protein as well as shorter variants thereof comprising all amino acids necessary for forming the active site. Preferably, DPP-IV comprises the amino acid sequence as set forth in SEQ. ID NO: 2 as well as shorter variants thereof comprising all amino acids necessary for forming the active site.

[0020] It is to be understood that the crystals of DPP-IV of the invention are not limited to naturally occurring or native DPP-IV. Indeed, the crystals of the invention include mutants of the native DPP-IV. Mutants of native DPP-IV are obtained by replacing at least one amino acid residue in a native DPP-IV domain with a different amino acid residue, or by adding or deleting amino acid residues within the native polypeptide or at the N- or C- terminus of the native polypeptide, and have substantially the same three-dimensional structure as the native DPP-IV from which the mutant is derived.

[0021] By having substantially the same three-dimensional structure is meant having a set of atomic structure coordinates from an apo- or co-crystal that have a root mean square deviation of less than or equal to about 1.5 Å when superimposed with the atomic structure coordinates of the native DPP-IV when at least 50% of the alpha carbon atoms of DPP-IV are included in the superposition.

[0022] In some instances, it may be particularly advantageous or convenient to substitute, delete and/or add amino acid residues to a native DPP-IV domain in order to provide convenient cloning sites in cDNA encoding the polypeptide, to aid in purification of the polypeptide, etc. Such substitutions, deletions and/or additions which do not substantially alter the three dimensional structure of the native DPP-IV will be apparent to those having skills in the art.

[0023] It should be noted that the mutants contemplated herein need not exhibit DPP-IV activity. Indeed, amino acid substitutions, additions or deletions that interfere with the peptidase activity of the DPP-IV but which do not significantly alter the three-dimensional structure of the domain are specifically contemplated by the invention. Such crystalline polypeptides, or the atomic structure coordinates obtained therefrom, can be used to identify compounds that bind to the native domain. These compounds may affect the activity or the native domain.

[0024] The derivative crystals of the invention generally comprise a crystalline DPP-IV polypeptide in covalent association with one or more heavy metal atoms. The polypeptide may correspond to a native or a mutated DPP-IV.

Heavy metal atoms useful for providing derivative crystals include, by way of example and not limitation, gold and mercury. Alternatively, derivative crystals can be formed from proteins which have heavy atoms incorporated into one or more amino acids, such as seleno-methionine substitutions for methionine.

[0025] Therefore, in a preferred embodiment of the present invention the co-crystal is a co-crystal of the extracellular domain of mammalian DPP-IV and $HgCl_2$.

[0026] The native and mutated DPP-IV polypeptides described herein may be isolated from natural sources or produced by methods well known to those skilled in the art of molecular biology. Expression vectors to be used may contain a native or mutated DPP-IV polypeptide coding sequence and appropriate transcriptional and/or translational control signals. These methods include *in vitro* recombinant DNA techniques, synthetic techniques and *in vivo* recombination/genetic recombination. See, for example, the techniques described in Maniatis et al., 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory, NY; and Ausubel et al., 1989, *Current Protocols in Molecular Biology*, Greene Publishing Associates and Wiley Interscience, NY.

[0027] A variety of host-expression vector systems may be utilized to express the DPP-IV coding sequence. These include but are not limited to microorganisms such as bacteria transformed with recombinant bacteriophage DNA, plasmid DNA or cosmid DNA expression vectors containing the DPP-IV coding sequence; yeast transformed with recombinant yeast expression vectors containing the DPP-IV coding sequence; insect cell systems infected with recombinant virus expression vectors (e.g. baculovirus) containing the DPP-IV coding sequence; plant cell systems infected with recombinant virus expression vectors (e.g., cauliflower mosaic virus, CaMV; tobacco mosiac virus, TMV) or transformed with recombinant plasmid expression vectors (e.g., Ti plasmid) containing the DPP-IV coding sequence; or animal cell systems. The expression elements of these systems vary in their strength and specificities. Depending on the host/vector system utilized, any of a number of suitable transcription and translation elements, including constitutive and inducible promoters such as pL of bacteriophage μ, plac, ptrp, ptac (ptrp-lac hybrid promoter) and the like may be used; when cloning in insect cell systems, promoters such as the baculovirus polyhedrin promoter may be used; when cloning in plant cell systems, promoters derived from the genome of plant cells (e.g., heat shock promoters; the promoter for the small subunit of RUBISCO; the promoter for the chlorophyll a/b binding protein) or from plant viruses (e.g., the 35 S RNA promoter of CaMV; the coat protein promoter of TMV) may be used; when cloning in mammalian cell systems, promoters derived from the genome of mammalian cells (e.g., metallothionein promoter) or from mammalian viruses (e.g., the adenovirus late promoter; the vaccinia virus 7.5K promoter) may be used; when generating cell lines that contain multiple copies of the DPP-IV coding sequence, SV40-, BPV- and EBV-based vectors may be used with an appropriate selectable marker.

[0028] In a preferred embodiment of the present invention, an isolated nucleic acid sequence encoding the soluble extracellular domain of DPP-IV comprising the nucleotide sequence of SEQ ID NO:1 is provided.

[0029] Additionally, an expression vector containing an isolated nucleic acid sequence encoding the soluble extracellular domain of DPP-IV comprising the nucleotide sequence of SEQ ID NO:1 is provided. Preferably, the expression vector for the expression of proteins in P. pastoris which are to be secreted. Furthermore, a host cell transformed with the said expression vector is provided. Preferably, the host cell is *Pichia pastoris*.

[0030] A further aspect of the present invention relates to a method of producing the soluble extracellular domain of DPP-IV comprising culturing the host cell with the said expression vector under conditions permitting the expression of the soluble extracellular domain of DPP-IV by the host cell. Preferably, the host cell is P. pastoris. The present invention also provides the soluble extracellular domain of DPP-IV produced by this method.

[0031] Furthermore, the present invention relates to a polypeptide comprising the soluble extracellular domain of DPP-IV as set forth in SEQ ID NO:2.

[0032] The apo-, derivative and co-crystals of the invention can be obtained by techniques well-known in the art of protein crystallography, including batch, liquid bridge, dialysis, vapor diffusion and hanging drop methods (see e.g. McPherson, 1982, *Preparation and Analysis of Protein Crystals*, John Wiley, NY; McPherson, 1990, *Eur. J. Biochem.* 189:1-23; Webber, 1991, *Adv. Protein Chem.* 41:1-36; Crystallization of Nucleic Acids and Proteins, Edited by Arnaud Ducruix and Richard Giege, Oxford University Press; Protein Crystallization Techniques, Strategies, and Tips, Edited by Terese Bergfors, International University Line, 1999). Generally, the apo- or co-crystals of the invention are grown by placing a substantially pure DPP-IV polypeptide in an aqueous buffer containing a precipitant at a concentration just below that necessary to precipitate the protein. Water is then removed from the solution by controlled evaporation to produce crystallizing conditions, which are maintained until crystal growth ceases.

[0033] Preferably, the crystals are produced by a method for crystallizing mammalian DPP-IV, the method comprising (a) providing a buffered, aqueous solution of pH 7 to 8.5 with a concentration of 7 mg/ml to 22 mg/ml of the extracellular domain of mammalian DPP-IV; and (b) growing crystals by vapor diffusion using a buffered reservoir solution with between 10% and 30% PEG. between 10% and 20% glycerol, wherein PEG has an average molecular weight between 1000 and 20000. More preferably, the extracellular domain of mammalian DPP-IV of step (a) of the method is produced in the yeast *Pichia pastoris* (*P. pastoris*) and then deglycosylated. For deglycosylation, different enzymes may be used comprising Endoglycosidase F or PNGase.

[0034] Preferably, co-crystals are produced by a method for co-crystallizing mammalian DPP-IV and an active site ligand, the method comprising (a) providing a buffered, aqueous solution of pH 7 to 8.5 with a concentration of 7 mg/ml to 22 mg/ml of the extracellular domain of mammalian DPP-IV; (b) adding a molar excess of the active site ligand to the aqueous solution of mammalian DPP-IV; (c) growing crystals by vapor diffusion using a buffered reservoir solution with between 10% and 30% PEG, between 10% and 20% glycerol, wherein PEG has an average molecular weight between 1000 and 20000. More preferably, the extracellular domain of mammalian DPP-IV of step (a) of the method is produced in P. pastoris and then deglycosylated.

[0035] A further aspect of the present invention relates to a crystal produced by the methods for crystallizing or co-crystallizing DPP-IV of the present invention.

[0036] Crystals may be frozen prior to data collection.

[0037] The mosaic spread of the frozen crystals could sometimes be reduced by annealing, wherein the stream of cold nitrogen gas is briefly blocked, allowing the frozen crystal to thaw momentarily before re-freezing in the nitrogen gas stream.

[0038] Diffraction data typically extending to 2.7 Å was collected from the frozen crystals at the synchrotron beamline x06 at the Swiss light source (SLS), Villigen Switzerland. Under optimum conditions, data extending to 2.1 Å was recorded. Preferably, the the data is collected at a resolution of 3.5 Å to 2.1 Å or better. More preferably, the data is collected at a resolution of 2.7 Å to 2.1 Å or better.

[0039] Derivative crystals of the invention can be obtained by soaking apo or co-crystals in mother liquor containing salts of heavy metal atoms, according to procedures known to those of skill in the art of X-ray crystallography.

[0040] Co-crystals of the invention can be obtained by soaking an apo crystal in mother liquor containing a ligand that binds to the active site, or can be obtained by co-crystallizing the DPP-IV polypeptide in the presence of one or more ligands that bind to the active site or to an allosteric site. Preferably, co-crystals are formed with an active site DPP-IV ligand which is slowly hydrolysable and forms a covalent bond. One example for such an active site ligand is Diprotin A.

[0041] In a further embodiment of the present invention a method for determining the three-dimensional structure of a crystallized extracellular domain of mammalian DPP-IV to a resolution of 3.5 Å to 2.1 Å or better is provided, the method comprising

(a) crystallizing an extracellular domain of mammalian DPP-IV; and

(b) analyzing the extracellular domain of mammalian DPP-IV by X-ray diffraction to determine the three-dimensional structure of the crystallized extracellular domain of mammalian DPP-IV, whereby the three-dimensional structure of a crystallized extracellular domain of mammalian DPP-IV is determined to a resolution of about 3.5 Å to 2.1 Å or better.

[0042] The present invention further relates to a machine-readable data storage medium comprising a data storage material encoded with machine readable data which, when using a machine programmed with instructions for using said data, displays a graphical three-dimensional representation of a molecule or molecular complex comprising at least a portion of the extracellular domain of mammalian DPP-IV comprising the amino acids of SEQ ID NO:2, the extracellular domain comprising the ligand binding active site being defined by a set of points having a root mean square deviation of less than about 1.5Å from points representing the backbone atoms of said amino acids as represented by structure coordinates listed in Table 4.

[0043] The crystals of the invention, and particularly the atomic structure coordinates obtained therefrom, have a wide variety of uses. For example, the crystals and structure coordinates described herein are particularly useful for identifying compounds that interact with DPP-IV as an approach towards developing new therapeutic agents. Pharmaceutical compositions of said compounds can be developed, and said compounds can be used for the manufacture of a medicament comprising said compound for the treatment of IGT, type I and type II diabetes, obesity and cancer.

[0044] Therefore, the present invention also relates to the use of a crystal or a co-crystal of the invention for the identification and/or design of inhibitors of DPP-IV activity.

[0045] Moreover, the present invention relates to a method for identifying a compound that interacts with DPP-IV, comprising the steps of

(a) generating a three-dimensional model of DPP-IV using the structure coordinates listed in Table 4, a root mean square deviation from the backbone atoms of said amino acids of less than 1.5Å; and

(b) employing said three-dimensional model to design or select a compound that interacts with DPP-IV.

In another aspect, the method further comprises the steps of

(c) obtaining the identified compound; and

(d) contacting the obtained compound with DPP-IV in order to determine the effect the compound has on DPP-IV activity.

[0046] The compound in these methods may be a compound that interacts with the active site of DPP-IV or may be a compound that interacts with an allosteric site of DPP-IV. Preferred are compounds which interact with the active site of DPP-IV. Even more preferred are compounds, which show an inhibitory effect on DPP-IV activity in step (d) of the methods of the present invention.

[0047] In a further aspect of the present invention the method for identifying a compound that interacts with DPP-IV is a computer-assisted method. Preferably, determining whether the compound is expected to bind to or interfere with the molecule or molecular complex includes performing a fitting operation between the compound and a binding site or substrate binding surface of the molecule or molecular complex, followed by computationally analyzing the results of the fitting operation to quantify the association between, or the interference with, the compound and the binding site. Optionally, the method further includes screening a library of compound. Optionally, the method further includes supplying or synthesizing the compound, then assaying the compound to determine whether it interacts with and has an effect on mammalian DPP-IV activity.

[0048] The present invention also relates to the compounds identified by the said methods for identifying a compound that interacts with DPP-IV.

[0049] The structure coordinates described herein can be used as phasing models in determining the crystal structures of additional native or mutated DPP-IV, as well as the structures of co-crystals of such DPP-IV with active site inhibitors or activators bound. The structure coordinates, as well as models of the three-dimensional structures obtained therefrom, can also be used to aid the elucidation of solution-based structures of native or mutated DPP-IVs, such as those obtained via NMR. Thus, the crystals and atomic structure coordinates of the invention provide a convenient means for elucidating the structures and functions of DPP-IV or other prolyl oligopeptidases.

[0050] For purposes of clarity and discussion, the crystals of the invention will be described by reference to specific DPP-IV exemplary apo crystals and co-crystals. Those skilled in the art will appreciate that the principles described herein are generally applicable to crystals of any mammalian DPP-IV, including, but not limited to DPP-IV.

[0051] Increased levels of glucagon like peptide 1 (GLP1) are beneficial for the decrease of plasma glucose in humans. The finding that DPP-IV is responsible for more than 95% of the degradation of GLP-1 led to an elevated interest in inhibition of this enzyme for the treatment of diabetes type II. Experiments in rats and humans have provided evidence that specific DPP-IV inhibition increased C_{max}, $T_{1/2}$ and total circulating GLP-1 and decreased plasma glucose. It has been demonstrated that patients with impaired glucose-tolerance (IGT), type-II diabetes and with a secondary failure to respond to sulfonylurea treatment benefit from increased levels of GLP1 peptides. In addition GLP-1 is effective in type-I diabetic patients due to its glucagono-static effect. More recent investigations show a delay of gastric emptying that could have beneficial effects on satiety and might be relevant for the treatment of obesity. Protection of functional GLP-1 by inhibition of DPP-IV and concomitant activation of the GLP-1 receptor might therefore have a synergistic potential in anti-diabetic drug research (Holst, J.J. & Deacon, C.F. (1998). Inhibition of the activity of dipeptidyl-peptidase IV as a treatment for type 2 diabetes. *Diabetes* **47**, 1663-1670). Selective and orally available small molecule inhibitors of DPP-IV have been discovered and are now in clinical trials.

[0052] Therefore, in a further aspect of the present invention a pharmaceutical composition comprising the compound identified by the methods of the present invention as having an effect on DPP-IV activity, or pharmaceutically acceptable salts thereof, and a pharmaceutically acceptable carrier is provided.

[0053] The phrase "pharmaceutically acceptable" is employed herein to refer to those compounds, materials, compositions, and/or dosage forms which are, within the scope of sound medical judgment, suitable for use in contact with the tissues of human beings and animals without excessive toxicity, irritation, allergic response, or other problem or complication, commensurate with a reasonable benefit/risk ratio.

[0054] As used herein, "pharmaceutically acceptable salts" refer to derivatives of the disclosed compounds wherein the parent compound is modified by making acid or base salts thereof. Examples of pharmaceutically acceptable salts include, but are not limited to, mineral or organic acid salts of basic residues such as amines; alkali or organic salts of acidic residues such as carboxylic acids; and the like. The pharmaceutically acceptable salts include the conventional non-toxic salts or the quaternary ammonium salts of the parent compound formed, for example, from non-toxic inorganic or organic acids. For example, such conventional non-toxic salts include those derived from inorganic acids such as hydrochloric, hydrobromic, sulfuric, sulfamic, phosphoric, nitric and the like; and the salts prepared from organic acids such as acetic, propionic, succinic, glycolic, stearic, lactic, malic, tartaric, citric, ascorbic, pamoic, maleic, hydroxymaleic, phenylacetic, glutamic, benzoic, salicylic, sulfanilic, 2-acetoxybenzoic, fumaric, benzenesulfonic, toluenesulfonic, methanesulfonic, ethane disulfonic, oxalic, isethionic, and the like.

[0055] The pharmaceutically acceptable salts of the present invention can be synthesized from the parent compound which contains a basic or acidic moiety by conventional chemical methods. Generally, such salts can be prepared by reacting the free acid or base forms of these compounds with a stoichiometric amount of the appropriate base or acid in water or in an organic solvent, or in a mixture of the two; generally, nonaqueous media like ether, ethyl acetate, ethanol, isopropanol, or acetonitrile are preferred. Lists of suitable salts are found in Remington's Pharmaceutical Sciences, 17th ed., Mack Publishing Company, Easton, PA, 1985, p. 1418, the disclosure of which is hereby incorpo-

rated by reference.

[0056] "Stable compound" and "stable structure" are meant to indicate a compound that is sufficiently robust to survive isolation to a useful degree of purity from a reaction mixture, and formulation into an efficacious therapeutic agent.

[0057] Furthermore, a compound identified by the methods of the present invention as having an effect on DPP-IV activity for use as a therapeutic active substance, in particular for the treatment of diabetes type I, diabetes type II, IGT, obesity and cancer, is provided.

[0058] A further aspect of the present invention relates to the use of a compound identified by the methods of the present invention as having an effect on DPP-IV activity for the manufacture of a medicament for the treatment of diabetes type-I, diabetes type-II, IG, obesity, and cancer.

[0059] Having now generally described this invention, the same will become better understood by reference to the specific examples, which are included herein for purpose of illustration only and are not intended to be limiting unless otherwise specified, in connection with the following figures.

Examples

[0060] Commercially available reagents referred to in the examples were used according to manufacturer's instructions unless otherwise indicated.

Example 1

DNA manipulation and sequence analysis

[0061] Preparation of DNA probes, digestion with restriction endonucleases, DNA ligation and transformation of E. coli strains were performed as described (Sambrook, J., Fritsch, E.F. & Maniatis, T. (1989). *Molecular Cloning: A Laboratory Manual.* Cold Spring Harbor Laboratory Press: Cold Spring Harbor, NY.). For DNA sequencing, the ABI PRISM BigDye Terminator Cycle Sequencing Ready Reaction Kit and ABI PRISM 310 Genetic analyzer were used. PCR were performed in the T3 Thermocycler (Whatman Biometra), using the Pfu polymerase (Stratagene).

Production and Purification of recombinant human sDPP-IV in P. pastoris

[0062] The ectodomain of DPP-IV, residues 31-766 (sDPP-IV), was amplified by PCR using a cDNA and the oligonucleotides 5'-TGCTGGAATTCGGCACAGATGATGCTAC-3' (with an EcoRI site in bold) and 5'-GCA TGG TAC CTT GAG GTG CTA AG -3' (with a KpnI site in bold). Using the two new restriction sites, the amplified DNA fragment (SEQ ID NO:1) was cloned into pPICZα-A vector (Invitrogen) to create a fusion with the α-mating factor signal sequence for the secretion of the protein. The use of the EcoRI restriction site added the amino acids glutamine and phenylalanine to the N-terminus of sDPP-IV. The sequence was confirmed by sequencing. pPICZα-sDPP-IV was linearized with SacI, transformed by electroporation in P. pastoris strain GS115 and the phenotype of the colonies obtained was checked as recommended by the distributor Invitrogen.

[0063] Eight transformants with phenotype MutS were screened for the expression of DPP-IV. Colonies were grown at 30°C in YPD medium (1% yeast extract, 2% peptone, 2% glucose) with zeocin (100 μg/ml) to an OD_{600} of 8-10. Cells were collected by centrifugation and resuspended in YP medium plus 2% methanol. The same amount of methanol was added every 24 h. After 48 h the medium of each clone was tested for activity (see below). sDPP-IV was then produced in a large scale culture using the transformed cell line with the highest activity per volume as described (Dale, G.E., D'Arcy, B., Yuvaniyama, C., Wipf, B., Oefner, C. & D'Arcy, A. (2000). Purification and crystallization of the extracellular domain of human neutral endopeptidase (neprilysin) expressed in Pichia pastoris. *Acta Crystallogr. D* **56**, 894-897).

[0064] Ten liters of the collected sDPP-IV supernatant of the selected transformed P. pastoris cell line was filtered and concentrated to 180 ml by crossflow ultrafiltration (skannette) using a 30 kDA filtration module (AGT Technology corporation). The concentrate was passed over a Sephacryl 200 XK 50/100 size exclusion column (5 x 95 cm, Pharmacia) equilibrated with 50 mM Tris-HCl pH 7.8 and 100 mM NaCl (S-buffer). Collected fractions were screened on SDS-PAGE and for activity. Fractions containing sDPP-IV were dialysed against 50 mM Tris-HCl pH 7.9. The protein solution was loaded on a Fractogel-TMAE column (2.6 x 13 cm, Merck) equilibrated with 50 mM Tris-HCl pH 7.9, washed with two column volumes of the same buffer and eluted with 500 ml of a linear gradient from 0 to 200 mM NaCl. Fractions containing sDPP-IV were dialysed against 20 mM sodium acetat pH 4.8. The protein solution was loaded on a Fractogel-COO^- column (1 x 12 cm, Merck) equilibrated with the same buffer and washed with two column volumes of this buffer. Bound proteins were eluted with 200 ml of a linear gradient from 50 to 500 M NaCl. The elution profile showed a major peak at 250 mM NaCl. Preparation of enzymatically deglycosylated sDPP-IV ($sDPPIV_{deglycos}$)

was carried out prior to loading on the last gelfiltration column. 0.1% EndoF1-GST was added to the pooled fractions of DPP-IV and incubated for 20 h at 21°C. The concentrated protein solution was loaded on a Biosec size exclusion column (1.6 x 60 cm, Merck), that was equilibrated with S-buffer. Fractions were analyzed by SDS-PAGE, showing a purity > 95%. N-terminal sequencing showed that the protein was efficiently processed by the STE13 signal peptidase which cleaves off the α-mating factor. Preparation of the $sDPPIV_{deglyco}$:ADA-complex was performed by addition of a two times excess of ADA (Sigma Type IV, from calf intestinal Mucosa) and purification using a Biosec-size exclusion column.

[0065] The soluble extracellular domain of human dipeptidyl peptidase IV (sDPP-IV, residues 31-766) was expressed in the yeast Pichia pastoris. The protein was secreted at the low level of 1 mg/l as estimated from the total activity. As a first purification step the concentrated protein was passed through a size-exclusion column which removed the main fraction of contaminating peptides from the yeast-peptone medium. Sequential chromatography on anion- and cation-exchanger and a second size exclusion chromatography were used to get protein of 95% purity as judged by SDS-PAGE. The yield of pure protein was 0.3 mg/l growth medium. The purified protein shows essentially identical kinetic parameters and inhibition constants for known inhibitors of DPP-IV to those reported for the enzyme purified from human serum (Tables 1 and 2).

Analytical methods

[0066] Purification of sDPP-IV was followed by electrophoresis on 10-20% Tricine SDS polyacrylamide gradient gels (Lammli, U.K. (1970). Cleavage of structural proteins during assembly of the head of bacteriophage T4. *Nature* **227**, 680-685). Protein concentrations were determined according to Bradford (Bradford, M.M. (1976). A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. *Anal. Biochem.* **72**, 248-254) or for pure protein by absorption spectroscopy using the calculated molecular extinction coefficient at 280 nm of 193'920 $M^{-1}cm^{-1}$ ($A_{280}^{0.1\%}$= 2.27cm^2/mg; Pace, C.N., Vajdos, F., Fee, L., Grimsley, G. & Gray, T. (1995). How to measure and predict the molar absorption coefficient of a protein. *Protein Sci* **4**, 2411-2423). Analytical gel filtration chromatography was performed on a Superdex 200 12 HR 10/30 column (Pharmacia) equilibrated with S-buffer. The eluate was monitored with a miniDAWN multi-angle laser light scattering detector (Wyatt) and a refractive index-detector (Shodex), which allows the determination of the molecular weight and dispersity over the elution peak (Wyatt, P.J. (1993). Light scattering and the absolute characterisation of macromolecules. *Analytica Chimica Acta* **272**, 1-40). Sedimentation equilibrium runs in a Beckman analytical ultracentrifuge (model Optima XL A) were performed at 20°C and 9000 rpm $sDPP\text{-}IV_{deglycos}$ and at 7000 rpm for $sDPP\text{-}IV_{deglycos}$:ADA-complex. The initial protein concentrations were 0.22 to 0.25 mg/ml in S-buffer. The absorption was followed at 280 nm. Assumed partial specific volumes for sDPP-IV of 0.729 cm^3/g and ADA of 0.735 cm^3/g were used to determine the molecular masses.

[0067] Free sulfhydryl groups were determined according the procedure described by Ellman (Ellman, G.L. (1959). Tissue sulfhydryl groups. *Arch. Biochem. Biophys.* **82**, 70-77) under denaturing conditions (0.3% SDS in 50 mM Tris pH 8.0).

Thermostability measurements

[0068] The irreversible loss of activity after incubation at various temperatures was used as an operational criterion of the thermostability of sDPP-IV. Kinetics of irreversible heat inactivation were performed as described by Sterner et al. (Sterner, R., Kleemann, G.R., Szadkowski, H., Lustig, A., Hennig, M. & Kirschner, K. (1996). Phosphoribosyl anthranilate isomerase from Thermotoga maritima is an extremely stable and active homodimer. *Protein Sci.* **5**, 2000-2008) with a final protein concentration of 20 µg/ml in 50 mM potassium phosphate buffer at pH 7.5, containing 100 mM NaCl. The residual activity was determined by recording the initial velocity at 25°C of the enzyme-catalyzed reaction (see below) and the averaged values obtained were plotted against the incubation temperature.

Biacore

[0069] DPP-IV was immobilized on a CM5 surface plasmon resonance sensor (Biacore) using standard amide coupling chemistry. The organic adlayer on this sensor type consists of carboxymethylated dextran (MW ≈100 kDA). After activation of the carboxylic acid groups using carbodiimide/N-hydroxysuccinimide solutions, the surface was contacted with a DPP-IV solution (80 µl) containing = 100 µg/ml protein in acetate buffer (10 mM, pH 4.5). The amount immobilized corresponded to a sensor response of roughly 10 000 RU. The surfaces of two flow cells were modified with protein. To suppress baseline drift - possibly due to slow dimer dissociation - the protein of one cell was cross-linked by short contact with carbodiimide/N-hydroxysuccinimide solution. This treatment did not influence the protein activity since binding constants determined with cross - linked protein were similar to those determined with non-cross-linked protein. Hepes buffer (0.01 M Hepes, pH 7.4, 0.15 M NaCl, 3 mM EDTA, 0.005% polysorbate 20 (v/v)) was used as the running

buffer. Diprotin-A was disolved directly in this buffer. NVP-DPP728 was first dissolved in pure DMSO and then diluted into running buffer. The final inhibitor solution contained less than 0.1% DMSO. Binding experiments were carried out by contacting the immobilized protein surfaces with inhibitor solutions of varying concentrations at a flow rate of 10 µl/ min or 30 µl/min. After each contact with inhibitor, the protein surfaces were regenerated by extensiveiy washing with running buffer.

Activity assay

[0070] The activity assay is based on the increase of fluorescence of products compared to the substrate Ala-Pro-7-amido-4-trifluoromethylcoumarin (Calbiochem, Smith, R.E., Reynolds, C.J. & Elder, E.A. (1992). The evolution of proteinase substrates with special reference to dipeptidylpeptidase IV. *Histochem. J.* **24**, 637-647). A 20 mM stock solution in 10 % DMF is stored at -20°C until use. Purification was followed by using a final substrate concentration of 50 µM and for the determination of kinetic parameters it was varied between 1.5 µM and 500 µM in the assay. DPP-IV activity assays were performed in 96 well plates in a total assay volume of 100 µl. The assay buffer consists of S-Buffer containing 0.1 mg/ml BSA. Fluorescence is detected in a Luminescence Spectrometer LS 50B (Perkin Elmer) at an excitation wavelength of 400 nm and an emission wavelength of 505 nm. Initial rate constants are calculated by best fit linear regression.

Example 2

Crystallization and Structure determination

[0071] For crystallization trials, $sDPP\text{-}IV_{deglycos}$ was concentrated to approximately 10 mg/ml. A reduced factorial screen was carried out using the vapour diffusion method. Crystals were obtained with 20-25% PEG 3350, 200 mM $MgCl_2$, Tris pH 8.5 and 15% glycerol. The crystals were flash-frozen in liquid nitrogen and exhibit the orthorhombic space group $P2_12_12_1$ with cell dimensions of about 65 Å, 68 Å and 420 Å and one dimer per asymmetric unit. They diffract to a maximum of 2.3 Å resolution using synchrotron radiation and show rather high mosaicity (0.5-1.2°). Addition of 1 mM Diprotin-A prior to crystallization led to crystals of the complex. The mercury derivative was produced by cocrystallization with 0.1 mM $HgCl_2$.

[0072] Data collection was performed using synchrotron radiation (Swiss light source, SLS Villigen, Switzerland and ID14, ESRF Grenoble, France) as well as in-house facilities (search for heavy atom derivatives, evaluation of crystal quality) and processed with DENZO (Otwinowski, Z. (1993). Oscillation data reduction program. In *Proceedings of the CCP4 Study Weekend: Data Collection and Processing* (Wawyey, L., Isaacs, N. & Bailey, S., eds.). pp. 56-62, SERC Daresbury Laboratory, UK). Details of the data collection statistics are given In Table 3. All programs used are part of the CCP4 (CCP4 (Collaborative Computational Project, Number 4) (1994). The CCP4 suite: programs for protein crystallography. *Acta Crystallogr. D*, 760-763) suite, except where indicated. The structure was determined by multiwavelength anomalous dispersion (MAD) of the mercury derivative. One major mercury binding site per subunit (Cys 551, one of the two free SH-groups Cys301 and Cys551 that are located near the active site) was identified by inspection of the difference patterson maps calculated from the peak wavelength data and was subsequently refined using SHARP (De la Fortelle, E. & Bricogne, G. (1997). Maximum likelihood heavy-atom parameter refinement for multiple isomorphus replacement and multiwavelength anomalous diffraction methods. *Methods Enzymol.* **276**, 472-494). Location of the twofold non-crystallographic axis was performed using this mercury site and the program find2folds (Dunten, P. & Hennig, M. (2002). Locating non-crystallographic symmetry elements: The program Find2Folds. *Acta Crystallogr.* A58, C76). Further analysis revealed another site per subunit (Cys301) with less occupancy and the site branched in two positions with about 2.4Å distance. Subsequently the phases were improved by application of twofold averaging combined with solvent flattening and histogram matching as implemented in DM. The initial electron density at 2.6 Å resolution was readily interpretable and about 90% of the polypeptide chain could be built. The molecular model was refined against 2.3 Å data. Subsequent rounds of manual rebuilding and refinement with REFMAC (Murshudov, G.N., Vagin, A.A., Lebedev, A., Wilson, K.S. & Dodson, E.J. (1999). Efficient anisotropic refinement of macromolecular structures using FFT. *Acta Crystallogr. D* **55**, 247-255) led to a complete molecular structure of the polypeptide chain from residues Ser39 to Pro766. Details of the refined structures are reported in Table 3. Coordinates have been deposited in the Protein Data Bank PDB.

Overall structure

[0073] The structure of human DPP-IV was solved by multiple anomalous dispersion (MAD) using a mercury derivative (see Table 3) and subsequently refined to an R-factor of 21.5 % at 2.1 Å resolution. The current model consists of all residues from Ser39 to Pro766 of the amino acid sequence of the expressed ectodomain of the protein.

[0074] A homodimer of DPP-IV is situated in the asymmetric unit (Figure 2). Dimerization is also observed in solution under various conditions and is required for activity. Each subunit is made of two domains, the catalytic domain with an α/β hydrolase fold containing the catalytic triad (Ser630, Asp708, His740) and a domain with an eight-bladed β-propeller fold, the β-propeller domain (Figure 2). The assignment of the secondary structure is given in Figures 1 and 2. The only other known crystal structure of this class of enzyme is prolyl-oligopeptidase (POP) determined by Fülop (Fülop, V., Bocskei, Z. & Polgar, L. (1998). Prolyl oligopeptidase: an unusual beta-propeller domain regulates proteolysis. *Cell* **94**, 161-170; pdb entry 1qfm) POP also has an α/β-hydrolase and a β-propeller domain, but is monomeric and the β-propeller consists of seven repeats only (Figure 3C).

Catalytic Domain

[0075] The catalytic domain is built up of residues Gln508 to Pro766 and contains a central eight-stranded parallel β-sheet that is flanked by 12 helices known as α/β hydrolase fold. 21% sequence identity to POP indicates significant structural homology (Figure 1) and superposition of the central α-helix, carrying the catalytic Ser630 on its first turn, with the corresponding structure of POP gives an r.m.s deviation of 2.5 Å^2 for 238 residues. The catalytic domain is connected to the β-propeller by an N-terminal 15 residue linker, which is considerably shorter than the corresponding 76 residue region in POP. The residues lacking in DPP-IV are, however, replaced structurally and functionally by the C-terminal part of the catalytic domain of the second subunit of the dimer.

β-propeller domain

[0076] The β-propeller domain is formed by the residues Lys56 to Asn497. The preceding N-terminal residues Ser39 to Leu55 form a loop structure with a small α-helix (α1*, Figure 1) at the surface and in close proximity to the first residues of the catalytic domain. The β-propeller domain consists of an eight-fold repeat of a four-stranded antiparallel β-sheet motif (blade, Figure 3). The blades are in circular arrangement such that they form a solvent filled tunnel with a diameter of about 13 Å.

[0077] The β-propeller domain in DPP-IV does not form a joint β-sheet motif (described as molecular "velcro"; Fülop, V. & Jones, D.T. (1999). Beta propellers: structural rigidity and functional diversity. *Curr. Opin. Struct. Biol.* **9**, 715-721; Paoli, M. (2001). Protein folds propelled by diversity. *Prog. Biophys. Mol. Biol.* **76**, 103-130), but rather the blades show a regular arrangement (β1/1 to β7/4 or β8/4) (Figure 3A) around the central axis forming a ring system that is not closed.

[0078] DPP-IV deviates from the regular β-propeller fold by additional secondary structural elements. An anti-parallel β-sheet is inserted in blade two between the strands one and two. The tip of the turn carries the residues Arg125 that forms a salt bridge with Glu205, that is situated at the C-terminal turn of an α-helix (residues Trp154 to Thr199), that is inserted between the first and second strands of blade 4. Arg125, Glu205 and the neighboring Glu204 form a significant part of the substrate binding site and are mainly responsible for the substrate specificity. An further anti-parallel β-sheet motif formed by residues Asp230 to Asn263 is inserted between the strands three and four of blade four (Figure 3B). This structural element forms a significant part of the dimer interface (see below).

[0079] Whereas the N-terminal β-sheet structure of the propeller has shorter strands and is somewhat tilted, the loop connecting the first and second β-sheet is longer, shows high temperature factors and may reduce the rigidity of the propeller architecture. The reduced stability of the circular domain structure at this position might be compensated by an extended hydrophobic cluster that consists of Ile63, Leu69, Ile76, Phe89, Leu90, Phe95, Phe98, Ile107, Ile114, Tyr135, Leu137 and Leu142, and a salt bridge between Arg61 and Asp104 and a hydrogen bond between the main chain NH of Arg61 and Tyr105. This distortion leads to a reduced height of the propeller at the positions between blade one and two (Figure 3B).

[0080] As no residues from the α/β hydrolase domain fill this up, a cleft between the two domains of the DPP-IV molecule is formed with a diameter of about 15 Å enabling access to the catalytic site (Figure 4). Therefore, we propose that DPP-IV has two independent ways for the substrate and product to access and leave the active site, a cleft between the domains and the tunnel through the β-propeller. The open cleft may enable large peptides and partially folded proteins to access the active site. The more narrow tunnel could be an exit for the cleaved dipeptides (Figure 4). The crystal structure of POP shows that the cleft between the two domains does not exist and the tunnel through the β-propeller is more narrow with about 4 Å compared to about 13 Å for DPP-IV (Figure 3A and 3C). This structural difference is supported by the observation that DPP-IV can process much larger substrates compared to POP. Peptides with a length of up to about 80 residues appear to be good substrates of DPP-IV. Larger proteins may also be cleaved depending on their tertiary structure. POP is reported to hydrolyse substrates with a maximum size of about 30 residues, only (Polgar, L. (1992). Unusual secondary specificity of prolyl oligopeptidase and the different reactivities of its two forms toward charged substrates. *Biochemistry* **31**, 7729-7735.). As the diameter of the β-propeller tunnel in POP is significantly smaller, it is conceivable that the structure of DPP-IV represents a more open and active enzyme.

[0081] The β-propeller motif has been found in several further proteins, but no or only low sequence homology could

be demonstrated (Polgar, L. (1992). Unusual secondary specificity of prolyl oligopeptidase and the different reactivities of its two forms toward charged substrates. *Biochemistry* **31**, 7729-7735.). A search of the PDB for homologous structures gave the best results for clathrin (7 blades, ter Haar, E., Musacchio, A., Harrison, S.C. & Kirchhausen, T. (1998). Atomic structure of clathrin: a beta propeller terminal domain joins an alpha zigzag linker. *Cell* **95**, 563-573), methylamine dehydrogenase (7 blades, Chen, L., Doi, M., Durley, R.C., Chistoserdov, A.Y., Lidstrom, M.E., Davidson, V.L. & Mathews, F.S. (1998). Refined crystal structure of methylamine dehydrogenase from Paracoccus denitrificans at 1.75 Å resolution. J. *Mol. Biol.* **276**, 131-149) and nitrite reductase (8 blades, Nurizzo, D., Cutruzzola, F., Arese, M., Bourgeois, D., Brunori, M., Cambillau, C. & Tegoni, M. (1998). Conformational changes occurring upon reduction and NO binding in nitrite reductase from Pseudomonas aeruginosa. *Biochemistry* **37**, 13987-13996), but no DPP-IV related function can be expected.

Active site

[0082] The catalytic triad (Ser630, Asp708, His740) is located in a large cavity at the interface of the two domains. Ser630 is found at the tip of a very sharp turn between β-strand 5 and helix C, called the nucleophile elbow, which is a characteristic of hydrolases of the α/β type (Ollis, D.L., Cheah, E., Cygler, M., Dijkstra, B., Frolow, F., Franken, S.M., Harel, M., Remington, S.J., Silman, I., Schrag, J. & et al. (1992). The alpha/beta hydrolase fold. *Protein Eng.* **5**, 197-211). The serine hydroxy group is well exposed to solvent and hydrogen bonded to the catalytic imidazole group of His740 on one side (2.6 Å) and accessible to the substrate on the other side. His740 is found in the middle of a loop between β-strand 8 and helix F. With a distance of 2.75 Å to Nε of the imidazole ring, one of the oxygen atoms of Asp708 is hydrogen bonded to His740 and completes the catalytic triad (Figure 5). The other oxygen atom of the carboxylate group of Asp708 is coordinated by two main chain NH-groups (Val711 and Asn710). Thus, the location and geometry of the triad are very similar to that found in other α/β hydrolases with the "handedness" opposite to the classical serine peptidases.

[0083] The negatively charged oxyanion of the tetrahedral intermediate is stabilized by the main chain NH-group of Tyr631 and by the hydroxy group of Tyr547 (Figure 5). Furthermore, the structure shows that the two Gly628 and Gly632 are important for the formation of the sharp turn to bring the catalytic residue Ser630 in the correct position. This is in accordance with mutagenesis studies on rat DPP-IV (Ogata, S., Misumi, Y., Tsuji, E., Takami, N., Oda, K. & Ikehara, Y. (1992). Identification of the active site residues in dipeptidyl peptidase IV by affinity labeling and site-directed mutagenesis. *Biochemistry* **31**, 2582-2587) showing that the sequence Gly_{628}-X-Ser_{630}-Tyr_{631}-Gly_{632} is essential for DPP-IV activity.

Substrate binding

[0084] The substrate binding site of DPP-IV is indicated by the inhibitor Diprotin-A (Ile-Pro-Ile). It is a slowly hydrolysable substrate with k_{cat}/K_M a factor of 10 less than Ile-Pro-4-nitroanilides (Rahfeld, J., Schierhorn, M., Hartrodt, B., Neubert, K. & Heins, J. (1991). Are diprotin A (Ile-Pro-Ile) and diprotin B (Val-Pro-Leu) inhibitors or substrates of dipeptidyl peptidase IV? *Biochim. Biophys. Acta* **1076**, 314-316). Inspection of the electron density map shows the ligand covalently bound to the active site Ser630 of the enzyme in both subunits. The N-terminal Ile (P2) and Pro residues (P1) are well defined and enable a detailed analysis of the interaction with the substrate binding site (according to the notation of Schechter; Schechter, I. & Berger, A. (1968). On the active site of proteases. 3. Mapping the active site of papain; specific peptide inhibitors of papain. *Biochem. Biophys. Res. Commun.* **32**, 898-902). Less well defined electron density is found for the C-terminal Ile (P1'), but in subunit B the conformation of this part of the ligand could also be observed (Figure 5). The side chain Nε of the catalytic His740 is in hydrogen bonding distance to the NH-group of P1' (2.90 Å) and to the Oγ of the Ser630 side chain (2.74 Å).

[0085] DPP-IV hydrolyzes oligopeptides and proteins from the N-terminus, cleaving dipeptide units when the second residue is proline, hydroxyproline, dehydroproline, pipecolic acid or alanine. In both subunits the proline in position P1 of Diprotin-A is in the trans-configuration and fits optimally into the pocket of the active site as expected (Fischer, G., Heins, J. & Barth, A. (1983). The conformation around the peptide bond between the P1- and P2-positions is important for catalytic activity of some proline-specific proteases. *Biochim. Biophys. Acta* **742**, 452-462). The S1 pocket is formed by Val711, Val656, Tyr662, Tyr666, Tyr659 and Tyr631 which shape a well defined hydrophobic pocket that would be filled by proline much better than by alanine. Gly is also accepted, but with very low k_{cat}/K_M values (Brandt, W., Lehmann, T., Thondorf, I., Born, I., Schutkowski, M., Rahfeld, J.U., Neubert, K. & Barth, A. (1995). A model of the active site of dipeptidyl peptidase IV predicted by comparative molecular field analysis and molecular modelling simulations. *Int. J. Pept. Protein Res.* **46**, 494-507). All other naturally ocurring amino acids residues cannot occupy position P1. Either the side chains are too bulky or hydrophilic. The side chains of the residues P2 and P1' point into the solvent and no interaction with the protein occurs. This explains the large diversity of amino acids accepted in substrates at these positions.

[0086] Essential for substrate binding and catalysis is the N-terminus of the substrates, which has to be unprotected and protonated (Brandt, W., Ludwig, O., Thondorf, I. & Barth, A. (1996). A new mechanism in serine proteases catalysis exhibited by dipeptidyl peptidase IV (DP IV) - Results of PM3 semiempirical thermodynamic studies supported by experimental results. *Eur. J. Biochem.* **236**, 109-114). The Diprotin-A complex shows that the terminal -NH_3^+ -group is held very precisely in position by strong interactions with the carboxylates of Glu205 and Glu206 (Figure 5). A third glutamate, Glu204, stabilizes this substrate recognition site by an hydrogen bonding network with the backbone NH of Arg125, His126 and Ser127 as well as the hydroxy group of Ser127. Importance of the glutamate residues is confirmed by single point mutations that abolish DPP-IV activity (Abbott, C.A., McCaughan, G.W. & Gorrell, M.D. (1999). Two highly conserved glutamic acid residues in the predicted beta propeller domain of dipeptidyl peptidase IV are required for its enzyme activity. *FEBS Lett.* **458**, 278-284). The double Glu-motif is located at the end of an helical segment ($\alpha 2^*$ in Figure 1, see also Figure 3) that is highly conserved in the DPP IV-like gene family (Asp-Trp-X-Tyr-Glu-Glu-Glu-X). The helix represents a deviation from the regular β-sheet architecture of the β-propeller domain (Figures 1 and 3A). The superposition of the active sites of the exopeptidase DPP-IV complexed with Diprotin A and the endopeptidase POP complexed with an octapeptide (Fülöp, V., Szeltner, Z., Renner, V. & Polgar, L. (2001). Structures of prolyl oligopeptidase substrate/inhibitor complexes. Use of inhibitor binding for titration of the catalytic histidine residue. J. *Biol. Chem.* **276**, 1262-1266) shows clear differences. The octapeptide substrate of POP coincides with the double Glu-motif in DPP-IV indicating that this additional structural element functions is very important for substrate selection. Thus, the double Glu-motif is a recognition site for the N-terminus of substrates and restricts the cleavage to dipeptides and the S1 pocket provides an optimal binding to proline and alanine residues leading to a highly specific peptidase.

Mode of inhibition by Diprotin-A

[0087] Inspection of the electron density of the bound inhibitor shows a covalent linkage to Ser630 and a sp^3-configuration for the C-atom of the former carbonyl-group of the scissile peptide. Consequently, a tetrahedral intermediate is observed in the complex structure with the substrate Diprotin A (Figure 5) with the oxyanion stabilized by hydrogen bonds to the hydroxy group of the side chain of Tyr547 (2.80 Å) and the main chain amine of Tyr631 (3.38 Å). As much catalytic power of serine proteases derives from its preferential binding of this transition state, the tetrahedral intermediate is a well-defined but high energy state with a short lifetime and its accumulation must be a result of a kinetic barrier.

[0088] Inspection of the active site structure reveals several structural features that are special to Diprotin A and may lead to the competitive inhibition of this substrate. First, the two hydrophobic isoleucine side chains point into the same direction in proximity and, therefore, this hydrophobic interaction may stabilize the tripeptide in a unsuitable conformation for the progress of the reaction. Second, a large network of salt bridges and hydrogen bonds stabilize the complex. It involves the carboxyl groups of Glu205/206 that interact with the N-terminus of the tripeptide, but Glu205 makes another salt bridge to Arg125 and this in turn interacts with the C-terminal carboxyl group of the tripeptide (Figure 5). It is obvious that this interaction is only present in tripeptidic substrates and may stabilize the observed intermediate by protection of the leaving group.

Dimerization

[0089] The crystal structure as well as analytical ultracentrifugation indicate dimeric oligomerization for deglycosylated sDPP-IV with a molecular weight of 169 kDa and non-crystallographic twofold symmetry (Figure 2). Six percent or 1837 $Å^2$ of the total solvent accessible surface area of each subunit is buried in the dimer interface (program XSAE, Broger, C. personal communication). This interface is mainly build up by two extra β-strands ($\beta 1^*$ and $\beta 2^*$) in the loop between the strands two and three of the fourth blade of the β-propeller domain (Figure 3A and 3B). Further interaction is provided by the α/β hydrolase domain with helix αE, β-strand β8 and helix αF with mainly hydrophobic interactions. The active site is very close to this dimer interface (Figure 2) with His740 from the catalytic triad located in the loop connecting αF and β7 (Figure 1). Consequently disruption of the dimer interface would also strongly affect the catalytic activity and dimerization is required for activity.

Stability of DPP-IV

[0090] As a cell surface protein DPP-IV is extremely stable. Consequently the recombinant sDPP-IV shows a half life of 5 min at 71°C in irreversible heat inactivation experiments independent of the protein concentration and the degree of glycosylation indicating high thermal stability. In unfolding experiments (Lambeir, A.M., Diaz Pereira, J.F., Chacon, P., Vermeulen, G., Heremans, K., Devreese, B., Van Beeumen, J., De Meester, I. & Scharpe, S. (1997). A prediction of DPP IV/CD26 domain structure from a physicochemical investigation of dipeptidyl peptidase IV (CD26) from human seminal plasma. *Biochim. Biophys. Acta* **1340**, 215-2) with protein purified from human seminal plasma

DPP-IV retained its native conformation up to 8 M Urea.

[0091] The crystal structure points to several factors that may contribute to this stability. Firstly, the structural organization as a dimer with an extended hydrophobic interface stabilizes the molecule as shown for several other proteins (Thoma, R., Hennig, M., Sterner, R. & Kirschner, K. (2000). Structure and function of mutationally generated monomers of dimeric phosphoribosylanthranilate isomerase from Thermotoga maritima. *Structure Fold. Des.* **8**, 265-276). Secondly, we observe five disulphide bonds and two free sulfhydryl groups by SH titration experiments under denaturing conditions that are now confirmed by the X-ray structure. All disulphide bridges in the β-propeller connect different strands in blades or stabilize loops (Cys444/Cys447; Cys385/Cys394, Cys454/Cys472, Cys328/Cys339). One disulfide bond is observed in the (α/β-hydrolase domain (Cys649/Cys762) and covalently links the C-terminal helix αF to the core of the α/β hydrolase domain.

Glycosylation

[0092] sDPP-IV overexpressed in P. pastoris shows a decreasing molecular weight over the elution peak in the analytical gelfiltration as analyzed online with a multiangle laser light scattering detector. In contrast, sDPP-IV deglycosylated with EndoF glycosidase shows an uniform molecular weight over the whole peak range, because of the specific cleavage of asparagine linked oligomannose after the first N-acetylglucoamines residue (GlcNAc). This leads to a decrease in molecular weight of 20 kDa as estimated by SDS-PAGE. Crystals suitable for X-ray diffraction are only observed for deglycosylated sDPP-IV and structure analysis shows four GlcNAc with interpretable electron density at the positions N85, N150, N229 and N281 in subunit A. In subunit B, again N85, N150 and N229 are visible, but no electron density was found for N281 and an additional site could be identified at N92. The GlcNAc of N85 is involved in a crystal contact in both subunits.

[0093] DPP-IV expressed in human has a more complex type of glycosylation compared to P. pastoris (Cremata, J., Montensino, R., Quintero, O. & Garcia, R. (1998). Glycosylation Profiling of Heterologous Proteins. In *Pichia* Protocol (Higgins, D.R. & Cregg, J.M., eds.), vol. 103. pp. 95-106, Humana Press: Totowa, New Jersey) and contains terminal sialic acid, however, this seems not to be a requirement for correct folding as shown here.

Interaction with ADA

[0094] Adenosine deaminase (ADA; EC 3.5.4.4) is a 41 kDa protein expressed in all mammaliantissues that catalyzes the deamidation of adenosine and 2'-deoxyadenosine to inosine and 2'-deoxyinosine, respectively. It is important for the regulation of the extracellular concentration of adenosine and for the regulation of the immune response. ADA is involved in T cell activation in general and the pathogensis of autoimmune disorders (such as rheumatoid arthritis) as well as the mechanism of immunodeficiency disease (such as SCID or AIDS). Binding of the soluble extracellular ADA is a unique property of DPP-IV molecules of higher mammals and is not observed in mouse nor rat DPP-IV (Iwaki-Egawa, S., Watanabe, Y. & Fujimoto, Y. (1997). CD26/dipeptidyl peptidase IV does not work as an adenosine deaminase-binding protein in rat cells. *Cell Immunol.* **178**, 180-186). Using analytical ultra-centrifugation, we observe a 1:1 complex of a ADA molecules with a sDPP-IV subunit giving a molecular weight of 252 kDa. Surface plasmon resonance (Biacore) measurements show a binding constant of 3.15 ± 2 nM to ADA from bovine with a very low dissociation rate (k_{off}=8.75*10^{-5} s^{-1}, k_{on}=2.98*10^{4} M^{-1}s^{-1}) indicating a strong interaction.

[0095] Mutagenesis studies (Abbott, C.A., McCaughan, G.W., Levy, M.T., Church, W.B. & Gorrell, M.D. (1999). Binding to human dipeptidyl peptidase IV by adenosine deaminase and antibodies that inhibit ligand binding involves overlapping, discontinuous sites on a predicted beta propeller domain. *Eur. J. Biochem.* **266**, 798-810; Dong, R.P., Tachibana, K., Hegen, M., Munakata, Y., Cho, D., Schlossman, S.F. & Morimoto, C. (1997). Determination of adenosine deaminase binding domain on CD26 and its immunoregulatory effect on T cell activation. J. *Immunol.* **159**, 6070-6076) identified two important regions in DPP-IV Leu_{340}-Val_{341}-Ala_{342}-Arg_{343} (at the beginning of β5/4) and Leu294 (α4, at the end of blade 4) and a less important region Glu_{332}-Ser_{333}-Ser_{334}-Gly_{335}-Arg_{336} (loop region, at the end of β5/3) that are all located at the surface of the β-propeller domain (Figure 1). Mutation to amino acids found in rat DPP-IV reduces binding affinity to ADA. These residues form a binding site that is located far away from the active site (Figure 2) confirming the independence of DPP-IV activity on ADA binding (Table 1; De Meester, I., Vanharn, G., Kestens, L., Vanhoof, G., Bosmans, E., Gigase, P. & Scharpe, S. (1994). Binding of adenosine deaminase to the lymphocyte surface via CD26. Eur. J. *Immunol.* **24**, 566-570). It is concluded that the function of DPP-IV is the localization and orientation of ADA for proper catalysis. The structure gives an indication for the orientation and localization at the cell surface, because the N-terminus must be close to the membrane and the ADA binding would be on the opposite site of the molecule - pointing away from the cell surface (Figure 2). Further, there would be sufficient space enabling interaction of ADA to the A1-adenosine receptor (Ciruela, F., Saura, C., Canela, E.I., Mallol, J., Lluis, C. & Franco, R. (1996). Adenosine deaminase affects ligand-induced signaling by interacting with cell surface adenosine receptors. *FEBS* Left. **380**, 219-223) which probably plays an important role in the ontogenesis of immune tissues. This view would also

support the hypothesis proposing a link for cell-cell interaction via the binding of DPP-IV, ADA and A1-adenosine.

Biological implications

[0096] The crystal structure of DPP-IV at 2.1 Å resolution reveals a V-shaped dimeric molecule with an extended dimer interface fostering the conformation of the overall molecule. The membrane association and stability of DPP-IV is used for binding of other proteins like ADA in order to achieve localization without disturbance of the enzymatic functionality.

[0097] Analysis of the complex with Diprotin A shows key structural features for proline specific exopeptidase specificity and activity. The negative charge of the double Glu motif guides the N-terminus of the peptide to the active site and fixes the substrate in the correct position for cleavage. The distance between this motif and the catalytic Ser630 limits the cleavage to dipeptides and the S1 pocket can just adopt proline or with less affinity alanine as side chains.

[0098] The low turnover rate of Diprotin A may be explained by the hydrophobic interaction of the two Ile-residues in the P2 and P1' positions as well as an extensive salt bridge cluster that involves the negatively charged C-terminus of Diprotin A. This structural information will aid the design of new specific inhibitors.

[0099] The active site is very accessible to the solvent by two entrances explaining that peptides can be cleaved by DPP-IV with almost no size limitation. A second access to the active site by the tunnel of the β-propeller domain is large enough to enable the release of the cleaved dipeptides. This structural arrangement certainly improves the catalytic turnover and is in great contrast to the crystal structure of POP that shows a much more narrow tunnel and no further access to the active site.

[0100] For most of the special features of DPP-IV namely dimerization, regulation of substrate access via two entrances, recognition of the substrate (double Glu-motif) and interaction with other proteins like ADA the β-propeller domain plays a key role. Thus, DPP-IV is an excellent example that the β-propeller fold can be tailored to adapt to different functionality.

Table 1.

Enzyme Kinetic Constants of DPP-IV

proteins	k_{cat}*	K_M*	k_{cat}/K_M
	(s^{-1})	μM)	($\mu M^{-1}s^{-1}$)
$sDPP\text{-}IV_{deglycos}$	43.1	17.2	2.51
$sDPP\text{-}IV_{glycos}$	37.3	15.5	2.41
$sDPP\text{-}IV_{deglycos}$-/ADA	39.6	14.8	2.68

* analyzed using Lineweaver-Burk plots; buffer: 50 mM Tris/HCl pH 7.8, containing 100 mM NaCl, 0.1 mg/ml BSA and 0.5% Dimethyl-formamid; temperature: 25°C

Table 2.

K_I and K_D Values of DPP-IV Inhibitors

	K_I	K_D	k_{on}	k_{off}
	μM)	μM)	$M^{-1}s^{-1}$	s^{-1}
Ile-Pro-Ile	4.63‡	3.8†	-	-
NVP-DPP728	0.006‡	0.002†	$1.36*10^{6}$†	$2.48*10^{-3}$†
$NVP\text{-}DPP728_{(Lit.)}$	0.011	0.010	$1.3*10^{5}$	$1.3*10^{-3}$

†measured with biacore; buffer: 0.01 M Hepes, pH 7.4, containing 0.15 M NaCl, 3 mM EDTA, 0.005% polysorbate 20 (v/v)

‡ temperature: 25°C; in assay buffer (see Table 1); glycosylated sDPP-IV

* Hughes, T.E., Mone, M.D., Russell, M.E., Weldon, S.C. & Villhauer, E.B. (1999). NVP-DPP728 (1-[[[2-[(5-cyanopyridin-2-yl)amino]ethyl]amino] acetyl]-2-cyano-(S)-pyrrolidine), a slow-binding inhibitor of dipeptidyl peptidase IV. *Biochemistry* 38, 11597-11603

Table 3.

Crystallographic Data and Refinement Statistics					
Data set	MAD Remote	MAD Peak	MAD Inflection	Apo	Diprotin-A complex
Wavelength	0.992	1.0065	1.009	0.9765	0.92
X-ray source	SLS	SLS	SLS	ID14,ESRF	SLS
Detector	MAR IP[a]	MAR IP[a]	MAR IP[a]	Quantum CCD	MAR CCD
Exposure time/ frame (s)	10	10	10	2	4
angular increment per frame (°)	2.0	2.0	2.0	0.25	0.25
total rotation range (°)	110	136	140	130	130
crystal to detector distance (mm:	410	410	410	240	260
unit cell parameters a, b,c (Å)	65.2; 68.7; 420.1	65.2; 68.7; 420.1	65.2; 68.7; 420.1	65.5; 68.2; 419.3	65.1; 67.1; 419.6
data reduction					
Maximum Resolution (Å)	2.6	2.6	2.6	2.1	2.5
No. of measurements	212619	263910	276921	234528	171090
No. of unique reflections	58627	59544	59939	87 113	64208,
completeness (%)*	97.5 (99.4)	99.9 (100.0)	99.9 (99.9)	82.9 (72.3)	97.5 (99.4)
Rsym *,b*	9.1 (15.9)	9.0 (18.1)	8.6 (14.2)	8.4 (26.8)	9.1(15.9)
heavy-atom refinement paramet					
f(e)/f'(e)	-7.0/9.5	-8.0/9.8	-12.1/5.0		
Phasing power[c] (anomalous)	0.95	1.0	0.7		
Refinement statistics					
resolution range (A)				20-2.1	30-2.5
R_{cryst} (R_{free})[d] (%)				21.5(26.5)	22.5(28.2)
No. of protein atoms[e] (mean B				11 962	11 962 (27.1)
in Å^2)				(34.6)	

[a] Marresearch image plate detector, diameter 345mm, 100µm pixel size

* Values in parentheses are statistics for highest resolution bin.

[b] $R_{sym} = \Sigma_h\Sigma_i|I_i(h)-\langle I(h)\rangle|/\Sigma_h\Sigma_i(h)$, where $I_i(h)$ und $\langle I(h)\rangle$ are the ith and mean measurement of the intensity of reflection h.

[c] Phasing power $=\Sigma h|F_H(h)|\Sigma_h|F_O(h)- |F_N(h) + F_H(h)||$.

[d] Σ_h $||F_{obs}| - |F_{calc}||\Sigma_h|F_{obs}|$, where $|F_{obs}|$ and $|F_{calc}|$ are the observed and calculated structure factor amplitudes for the reflection h, applied to the working (R_{cryst}) and test (R_{free})sets, respectively.

[e] Non-hydrogen atoms, only.

Table 3. (continued)

Crystallographic Data and Refinement Statistics					
Data set	MAD Remote	MAD Peak	MAD Inflection	Apo	Diprotin-A complex
Refinement statistics					
No. of water molecules				322 (33.4)	268(25.0)
No. of ligand/ heavy atoms (mean B in Å^2)				6 (77.3)	24 (28.3)
No. of NAG atoms (mean B in Å^2)				112 (59.0)	98 (51.4)
rmsd[f] bonds (Å^2)				0.018	0.019
Rmsd[f] angles (°)				1.86	2.07

[f] rmsd; root mean square deviation from mean.

Table 4: Structure coordinates for human DPP-IV

Table 4 lists the atomic structure coordinates for DPP-IV as derived by X-ray diffraction from a crystal of DPP-IV.

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HEADER    DPP-IV
COMPND    Human Dipeptidyl peptidase IV
COMPND
SOURCE    human
REMARK   1
REMARK   1  REFINEMENT REMARKS:
REMARK   1
REMARK   1
REMARK   1  "apo"-structure
REMARK   1  (mercury derivative different from MAD experiment used for
refinement)
REMARK   1
REMARK   1
REMARK   2
REMARK   2                          2.1A resolution
REMARK   2
REMARK   3
REMARK   3 REFINEMENT.
REMARK   3   PROGRAM     : REFMAC 5.0
REMARK   3   AUTHORS     : MURSHUDOV,VAGIN,DODSON
REMARK   3
REMARK   3    REFINEMENT TARGET : MAXIMUM LIKELIHOOD
REMARK   3
REMARK   3  DATA USED IN REFINEMENT.
REMARK   3   RESOLUTION RANGE HIGH (ANGSTROMS) :   2.10
REMARK   3   RESOLUTION RANGE LOW  (ANGSTROMS) :  12.00
REMARK   3   DATA CUTOFF                (SIGMA(F)) : NONE
REMARK   3   COMPLETENESS FOR RANGE        (%) :  82.99
REMARK   3   NUMBER OF REFLECTIONS             :   87113
REMARK   3
REMARK   3  FIT TO DATA USED IN REFINEMENT.
REMARK   3   CROSS-VALIDATION METHOD       : THROUGHOUT
REMARK   3   FREE R VALUE TEST SET SELECTION  : RANDOM
REMARK   3   R VALUE      (WORKING + TEST SET) : 0.21747
REMARK   3   R VALUE            (WORKING SET) :  0.21485
REMARK   3   FREE R VALUE                      :  0.26560
REMARK   3   FREE R VALUE TEST SET SIZE   (%) :  5.0
REMARK   3   FREE R VALUE TEST SET COUNT      :  4619
REMARK   3
REMARK   3  FIT IN THE HIGHEST RESOLUTION BIN.
REMARK   3   TOTAL NUMBER OF BINS USED           :      20
REMARK   3   BIN RESOLUTION RANGE HIGH           :   2.100
REMARK   3   BIN RESOLUTION RANGE LOW            :   2.153
REMARK   3   REFLECTION IN BIN         (WORKING SET) :  2014
REMARK   3   BIN R VALUE               (WORKING SET) :  0.246
REMARK   3   BIN FREE R VALUE SET COUNT          :     91
REMARK   3   BIN FREE R VALUE                    :  0.278
REMARK   3
REMARK   3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK   3   ALL ATOMS            :   12366
REMARK   3
REMARK   3  ESTIMATED OVERALL COORDINATE ERROR.
REMARK   3   ESU BASED ON R VALUE                            (A):  0.280
REMARK   3   ESU BASED ON FREE R VALUE                       (A):  0.228
REMARK   3   ESU BASED ON MAXIMUM LIKELIHOOD                 (A):  0.244
REMARK   3   ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2):  9.427
REMARK   3
REMARK   3
REMARK   3  RMS DEVIATIONS FROM IDEAL VALUES         COUNT    RMS     WEIGHT
REMARK   3   BOND LENGTHS REFINED ATOMS          (A): 12400 ; 0.018 ; 0.021
REMARK   3   BOND LENGTHS OTHERS                 (A): 10588 ; 0.001 ; 0.020
REMARK   3   BOND ANGLES REFINED ATOMS    (DEGREES): 16876 ; 1.867 ; 1.936
REMARK   3   BOND ANGLES OTHERS           (DEGREES): 24632 ; 0.889 ; 3.000
REMARK   3   TORSION ANGLES, PERIOD 1     (DEGREES):  1454 ; 5.183 ; 3.000
REMARK   3   TORSION ANGLES, PERIOD 3     (DEGREES):  2075 ;19.350 ;15.000
REMARK   3   CHIRAL-CENTER RESTRAINTS        (A**3):  1790 ; 0.135 ; 0.200
REMARK   3   GENERAL PLANES REFINED ATOMS         (A): 13738 ; 0.007 ; 0.020
REMARK   3   GENERAL PLANES OTHERS                (A):  2674 ; 0.004 ; 0.020
REMARK   3   NON-BONDED CONTACTS REFINED ATOMS    (A):  2592 ; 0.240 ; 0.300
REMARK   3   NON-BONDED CONTACTS OTHERS           (A): 10721 ; 0.223 ; 0.300
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REMARK   3   NON-BONDED TORSION OTHERS                (A):    17 ; 0.494 ; 0.500
REMARK   3   H-BOND (X...Y) REFINED ATOMS             (A):   820 ; 0.155 ; 0.500
REMARK   3   H-BOND (X...Y) OTHERS                    (A):     7 ; 0.115 ; 0.500
REMARK   3   SYMMETRY VDW REFINED ATOMS               (A):     9 ; 0.235 ; 0.300
REMARK   3   SYMMETRY VDW OTHERS                      (A):    38 ; 0.277 ; 0.300
REMARK   3   SYMMETRY H-BOND REFINED ATOMS            (A):     3 ; 0.397 ; 0.500
REMARK   3
REMARK   3  ISOTROPIC THERMAL FACTOR RESTRAINTS.     COUNT   RMS     WEIGHT
REMARK   3   MAIN-CHAIN BOND REFINED ATOMS  (A**2):  7252 ; 0.874 ; 1.500
REMARK   3   MAIN-CHAIN ANGLE REFINED ATOMS (A**2): 11766 ; 1.603 ; 2.000
REMARK   3   SIDE-CHAIN BOND REFINED ATOMS  (A**2):  5148 ; 2.300 ; 3.000
REMARK   3   SIDE-CHAIN ANGLE REFINED ATOMS (A**2):  5110 ; 3.638 ; 4.500
REMARK   3
REMARK   3  NCS RESTRAINTS STATISTICS
REMARK   3   NUMBER OF NCS GROUPS : NULL
REMARK   3
REMARK   3
REMARK   3
REMARK   4
REMARK   4   data collected at 100K at ID14 in Grenoble (ESRF, France)
REMARK   4   Phasing by MAD using Hg derivative and data collected to 2.7 A
REMARK   4   at Villigen (SLS, Switzerland)
REMARK   4
SEQRES   1 A  728  SER ARG LYS THR TYR THR LEU THR ASP TYR LEU LYS ASN
SEQRES   2 A  728  THR TYR ARG LEU LYS LEU TYR SER LEU ARG TRP ILE SER
SEQRES   3 A  728  ASP HIS GLU TYR LEU TYR LYS GLN GLU ASN ASN ILE LEU
SEQRES   4 A  728  VAL PHE ASN ALA GLU TYR GLY ASN SER SER VAL PHE LEU
SEQRES   5 A  728  GLU ASN SER THR PHE ASP GLU PHE GLY HIS SER ILE ASN
SEQRES   6 A  728  ASP TYR SER ILE SER PRO ASP GLY GLN PHE ILE LEU LEU
SEQRES   7 A  728  GLU TYR ASN TYR VAL LYS GLN TRP ARG HIS SER TYR THR
SEQRES   8 A  728  ALA SER TYR ASP ILE TYR ASP LEU ASN LYS ARG GLN LEU
SEQRES   9 A  728  ILE THR GLU GLU ARG ILE PRO ASN ASN THR GLN TRP VAL
SEQRES  10 A  728  THR TRP SER PRO VAL GLY HIS LYS LEU ALA TYR VAL TRP
SEQRES  11 A  728  ASN ASN ASP ILE TYR VAL LYS ILE GLU PRO ASN LEU PRO
SEQRES  12 A  728  SER TYR ARG ILE THR TRP THR GLY LYS GLU ASP ILE ILE
SEQRES  13 A  728  TYR ASN GLY ILE THR ASP TRP VAL TYR GLU GLU VAL
SEQRES  14 A  728  PHE SER ALA TYR SER ALA LEU TRP TRP SER PRO ASN GLY
SEQRES  15 A  728  THR PHE LEU ALA TYR ALA GLN PHE ASN ASP THR GLU VAL
SEQRES  16 A  728  PRO LEU ILE GLU TYR SER PHE TYR SER ASP GLU SER LEU
SEQRES  17 A  728  GLN TYR PRO LYS THR VAL ARG VAL PRO TYR PRO LYS ALA
SEQRES  18 A  728  GLY ALA VAL ASN PRO THR VAL LYS PHE PHE VAL VAL ASN
SEQRES  19 A  728  THR ASP SER LEU SER SER VAL THR ASN ALA THR SER ILE
SEQRES  20 A  728  GLN ILE THR A PRO ALA SER MET LEU ILE GLY ASP HIS
SEQRES  21 A  728  TYR LEU CYS ASP VAL THR TRP ALA THR GLN GLU ARG ILE
SEQRES  22 A  728  SER LEU GLN TRP LEU ARG ARG ILE GLN ASN TYR SER VAL
SEQRES  23 A  728  MET ASP ILE CYS ASP TYR ASP GLU SER SER GLY ARG TRP
SEQRES  24 A  728  ASN CYS LEU VAL ALA ARG GLN HIS ILE GLU MET SER THR
SEQRES  25 A  728  THR GLY TRP VAL GLY ARG PHE ARG PRO SER GLU PRO HIS
SEQRES  26 A  728  PHE THR LEU ASP GLY ASN SER PHE TYR LYS ILE ILE SER
SEQRES  27 A  728  ASN GLU GLU GLY TYR ARG HIS ILE CYS TYR PHE GLN ILE
SEQRES  28 A  728  ASP LYS LYS ASP CYS THR PHE ILE THR LYS GLY THR TRP
SEQRES  29 A  728  GLU VAL ILE GLY ILE GLU ALA LEU THR SER ASP TYR LEU
SEQRES  30 A  728  TYR TYR ILE SER ASN GLU TYR LYS GLY MET PRO GLY GLY
SEQRES  31 A  728  ARG ASN LEU TYR LYS ILE GLN LEU SER ASP TYR THR LYS
SEQRES  32 A  728  VAL THR CYS LEU SER CYS GLU LEU ASN PRO GLU ARG CYS
SEQRES  33 A  728  GLN TYR TYR SER VAL SER PHE SER LYS GLU ALA LYS TYR
SEQRES  34 A  728  TYR GLN LEU ARG CYS SER GLY PRO GLY LEU PRO LEU TYR
SEQRES  35 A  728  THR LEU HIS SER SER VAL ASN ASP LYS GLY LEU ARG VAL
SEQRES  36 A  728  LEU GLU ASP ASN SER ALA LEU ASP LYS MET LEU GLN ASN
SEQRES  37 A  728  VAL GLN MET PRO SER LYS LYS LEU ASP PHE ILE ILE LEU
SEQRES  38 A  728  ASN GLU THR LYS PHE TRP TYR GLN MET ILE LEU PRO PRO
SEQRES  39 A  728  HIS PHE ASP LYS SER LYS LYS TYR PRO LEU LEU LEU ASP
SEQRES  40 A  728  VAL TYR ALA GLY PRO CYS SER GLN LYS ALA ASP THR VAL
SEQRES  41 A  728  PHE ARG LEU ASN TRP ALA THR TYR LEU ALA SER THR GLU
SEQRES  42 A  728  ASN ILE ILE VAL ALA SER PHE ASP GLY ARG GLY SER GLY
SEQRES  43 A  728  TYR GLN GLY ASP LYS ILE MET HIS ALA ILE ASN ARG ARG
SEQRES  44 A  728  LEU GLY THR PHE GLU VAL GLU ASP GLN ILE GLU ALA ALA
SEQRES  45 A  728  ARG GLN PHE SER LYS MET GLY PHE VAL ASP ASN LYS ARG
SEQRES  46 A  728  ILE ALA ILE TRP GLY TRP SER TYR GLY GLY TYR VAL THR
SEQRES  47 A  728  SER MET VAL LEU GLY SER GLY SER GLY VAL PHE LYS CYS
SEQRES  48 A  728  GLY ILE ALA VAL ALA PRO VAL SER ARG TRP GLU TYR TYR
SEQRES  49 A  728  ASP SER VAL TYR THR GLU ARG TYR MET GLY LEU PRO THR
SEQRES  50 A  728  PRO GLU ASP ASN LEU ASP HIS TYR ARG ASN SER THR VAL
SEQRES  51 A  728  MET SER ARG ALA GLU ASN PHE LYS GLN VAL GLU TYR LEU
SEQRES  52 A  728  LEU ILE HIS GLY THR ALA ASP ASP ASN VAL HIS PHE GLN
SEQRES  53 A  728  GLN SER ALA GLN ILE SER LYS ALA LEU VAL ASP VAL GLY
SEQRES  54 A  728  VAL ASP PHE GLN ALA MET TRP TYR THR ASP GLU ASP HIS
SEQRES  55 A  728  GLY ILE ALA SER SER THR ALA HIS GLN HIS ILE TYR THR
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SEQRES  56 A  728  HIS MET SER HIS PHE ILE LYS GLN CYS PHE SER LEU PRO
SEQRES   1 B  728  SER ARG LYS THR TYR THR LEU THR ASP TYR LEU LYS ASN
SEQRES   2 B  728  THR TYR ARG LEU LYS LEU TYR SER LEU ARG TRP ILE SER
SEQRES   3 B  728  ASP HIS GLU TYR LEU TYR LYS GLN GLU ASN ASN ILE LEU
SEQRES   4 B  728  VAL PHE ASN ALA GLU TYR GLY ASN SER SER VAL PHE LEU
SEQRES   5 B  728  GLU ASN SER THR PHE ASP GLU PHE GLY HIS SER ILE ASN
SEQRES   6 B  728  ASP TYR SER ILE SER PRO ASP GLY GLN PHE ILE LEU LEU
SEQRES   7 B  728  GLU TYR ASN TYR VAL LYS GLN TRP ARG HIS SER TYR THR
SEQRES   8 B  728  ALA SER TYR ASP ILE TYR ASP LEU ASN LYS ARG GLN LEU
SEQRES   9 B  728  ILE THR GLU GLU ARG ILE PRO ASN ASN THR GLN TRP VAL
SEQRES  10 B  728  THR TRP SER PRO VAL GLY HIS LYS LEU ALA TYR VAL TRP
SEQRES  11 B  728  ASN ASN ASP ILE TYR VAL LYS ILE GLU PRO ASN LEU PRO
SEQRES  12 B  728  SER TYR ARG ILE THR TRP THR GLY LYS GLU ASP ILE ILE
SEQRES  13 B  728  TYR ASN GLY ILE THR ASP TRP VAL TYR GLU GLU GLU VAL
SEQRES  14 B  728  PHE SER ALA TYR SER ALA LEU TRP TRP SER PRO ASN GLY
SEQRES  15 B  728  THR PHE LEU ALA TYR ALA GLN PHE ASN ASP THR GLU VAL
SEQRES  16 B  728  PRO LEU ILE GLU TYR SER PHE TYR SER ASP GLU SER LEU
SEQRES  17 B  728  GLN TYR PRO LYS THR VAL ARG VAL PRO TYR PRO LYS ALA
SEQRES  18 B  728  GLY ALA VAL ASN PRO THR VAL LYS PHE PHE VAL VAL ASN
SEQRES  19 B  728  THR ASP SER LEU SER SER VAL THR ASN ALA THR SER ILE
SEQRES  20 B  728  GLN ILE THR ALA PRO ALA SER MET LEU ILE GLY ASP HIS
SEQRES  21 B  728  TYR LEU CYS ASP VAL THR TRP ALA THR GLN GLU ARG ILE
SEQRES  22 B  728  SER LEU GLN TRP LEU ARG ARG ILE GLN ASN TYR SER VAL
SEQRES  23 B  728  MET ASP ILE CYS ASP TYR ASP GLU SER SER GLY ARG TRP
SEQRES  24 B  728  ASN CYS LEU VAL ALA ARG GLN HIS ILE GLU MET SER THR
SEQRES  25 B  728  THR GLY TRP VAL GLY ARG PHE ARG PRO SER GLU PRO HIS
SEQRES  26 B  728  PHE THR LEU ASP GLY ASN SER PHE TYR LYS ILE ILE SER
SEQRES  27 B  728  ASN GLU GLU GLY TYR ARG HIS ILE CYS TYR PHE GLN ILE
SEQRES  28 B  728  ASP LYS LYS ASP CYS THR PHE ILE THR LYS GLY THR TRP
SEQRES  29 B  728  GLU VAL ILE GLY ILE GLU ALA LEU THR SER ASP TYR LEU
SEQRES  30 B  728  TYR TYR ILE SER ASN GLU TYR LYS GLY MET PRO GLY GLY
SEQRES  31 B  728  ARG ASN LEU TYR LYS ILE GLN LEU SER ASP TYR THR LYS
SEQRES  32 B  728  VAL THR CYS VAL SER CYS GLU LEU ASN PRO GLU ARG CYS
SEQRES  33 B  728  GLN TYR TYR SER VAL SER PHE SER LYS GLU ALA LYS TYR
SEQRES  34 B  728  TYR GLN LEU ARG CYS SER GLY PRO GLY LEU PRO LEU TYR
SEQRES  35 B  728  THR LEU HIS SER SER VAL ASN ASP LYS GLY LEU ARG VAL
SEQRES  36 B  728  LEU GLU ASP ASN SER ALA LEU ASP LYS MET LEU GLN ASN
SEQRES  37 B  728  VAL ILE ASP PHE SER LYS LYS LEU ASP PHE ILE ILE LEU
SEQRES  38 B  728  ASN GLU THR LYS PHE TRP TYR GLN MET ILE LEU PRO PRO
SEQRES  39 B  728  HIS PHE ASP LYS SER LYS LYS TYR PRO LEU LEU LEU ASP
SEQRES  40 B  728  VAL TYR ALA GLY PRO CYS SER GLN LYS ALA ASP THR VAL
SEQRES  41 B  728  PHE ARG LEU ASN TRP ALA THR TYR LEU ALA SER THR GLU
SEQRES  42 B  728  ASN ILE CYS VAL ALA SER PHE ASP GLY ARG GLY SER GLY
SEQRES  43 B  728  TYR GLN GLY ASP LYS ILE MET HIS ALA ILE ASN ARG ARG
SEQRES  44 B  728  LEU GLY THR PHE GLU VAL GLU ASP GLN ILE GLU ALA ALA
SEQRES  45 B  728  ARG GLN PHE SER LYS MET GLY PHE VAL ASP ASN LYS ARG
SEQRES  46 B  728  ILE ALA ILE TRP GLY TRP SER TYR GLY GLY TYR VAL THR
SEQRES  47 B  728  SER MET VAL LEU GLY SER GLY SER GLY VAL PHE LYS CYS
SEQRES  48 B  728  GLY ILE ALA VAL ALA PRO VAL SER ARG TRP GLU TYR TYR
SEQRES  49 B  728  ASP SER VAL TYR THR GLU ARG TYR MET GLY LEU PRO THR
SEQRES  50 B  728  PRO GLU ASP ASN LEU ASP HIS TYR ARG ASN SER THR VAL
SEQRES  51 B  728  MET SER ARG ALA GLU ASN PHE LYS GLN VAL GLU TYR LEU
SEQRES  52 B  728  LEU ILE HIS GLY THR ALA ASP ASP ASN VAL HIS PHE GLN
SEQRES  53 B  728  GLN SER ALA GLN ILE SER LYS ALA LEU VAL ASP VAL GLY
SEQRES  54 B  728  VAL ASP PHE GLN ALA MET TRP TYR THR ASP GLU ASP HIS
SEQRES  55 B  728  GLY ILE ALA SER SER THR ALA HIS GLN HIS ILE TYR THR
SEQRES  56 B  728  HIS MET SER HIS PHE ILE LYS GLN CYS PHE SER LEU PRO
HET     NAG  A 793      14
HET     NAG  A 794      14
HET     NAG  A 795      14
HET     NAG  A 796      14
HET     NAG  B 793      14
HET     NAG  B 794      14
HET     NAG  B 796      14
HET     NAG  B 797      14
HET     HG   Y 303       1
HET     HG   Y 301       1
HET     HG   Y 302       1
HET     HG   Z 303       1
HET     HG   Z 301       1
HET     HG   Z 302       1
FORMUL   6  NAG    C8 H15 N1 O5
FORMUL   7  NAG    C8 H15 N1 O5
FORMUL   8  NAG    C8 H15 N1 O5
FORMUL   9  NAG    C8 H15 N1 O5
FORMUL  10  NAG    C8 H15 N1 O5
FORMUL  11  NAG    C8 H15 N1 O5.
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FORMUL  12  NAG    C8 H15 N1 O5
FORMUL  13  NAG    C8 H15 N1 O5
FORMUL  14  HG     HG1 ++
FORMUL  15  HG     HG1 ++
FORMUL  16  HG     HG1 ++
FORMUL  17  HG     HG1 ++
FORMUL  18  HG     HG1 ++
FORMUL  19  HG     HG1 ++
FORMUL  20  HOH    *322(H2 O1)
CRYST1   65.496   68.240   419.289  90.00  90.00  90.00 P 21 21 21    4
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Cl.1 Atom No.	2	3 Atom type	4 Aa type	5 Aa No.	6 X	7 Y	8 Z	9 OCC	10 B factor
ATOM	1	N	SER A	39	81.432	37.048	22.064	1.00	53.58
ATOM	2	CA	SER A	39	81.906	38.278	21.379	1.00	53.40
ATOM	3	C	SER A	39	82.622	39.311	22.300	1.00	53.71
ATOM	4	O	SER A	39	82.300	40.493	22.268	1.00	54.99
ATOM	5	CB	SER A	39	80.683	38.903	20.729	1.00	53.66
ATOM	6	OG	SER A	39	79.738	37.881	20.418	1.00	51.39
ATOM	7	N	ARG A	40	83.591	38.872	23.109	1.00	53.25
ATOM	8	CA	ARG A	40	84.264	39.750	24.098	1.00	52.31
ATOM	9	C	ARG A	40	83.601	40.490	25.265	1.00	50.54
ATOM	10	O	ARG A	40	83.314	39.903	26.298	1.00	49.96
ATOM	11	CB	ARG A	40	85.768	39.965	23.920	1.00	52.68
ATOM	12	CG	ARG A	40	86.628	38.946	24.740	1.00	54.78
ATOM	13	CD	ARG A	40	85.794	37.897	25.546	1.00	57.24
ATOM	14	NE	ARG A	40	86.328	36.534	25.499	1.00	58.28
ATOM	15	CZ	ARG A	40	85.660	35.448	25.096	1.00	59.61
ATOM	16	NH1	ARG A	40	84.401	35.530	24.686	1.00	61.49
ATOM	17	NH2	ARG A	40	86.261	34.262	25.094	1.00	58.92
ATOM	18	N	LYS A	41	83.456	41.803	25.081	1.00	48.23
ATOM	19	CA	LYS A	41	82.818	42.756	25.984	1.00	46.53
ATOM	20	C	LYS A	41	81.370	42.368	26.314	1.00	44.42
ATOM	21	O	LYS A	41	80.703	41.655	25.573	1.00	43.94
ATOM	22	CB	LYS A	41	82.863	44.105	25.282	1.00	46.80
ATOM	23	CG	LYS A	41	82.277	45.301	25.964	1.00	48.40
ATOM	24	CD	LYS A	41	81.868	46.280	24.842	1.00	48.84
ATOM	25	CE	LYS A	41	82.184	47.736	25.157	1.00	51.33
ATOM	26	NZ	LYS A	41	82.581	48.511	23.903	1.00	53.12
ATOM	27	N	THR A	42	80.885	42.833	27.447	1.00	41.70
ATOM	28	CA	THR A	42	79.609	42.354	27.944	1.00	39.43
ATOM	29	C	THR A	42	78.630	43.494	28.003	1.00	37.10
ATOM	30	O	THR A	42	79.076	44.650	27.942	1.00	36.72
ATOM	31	CB	THR A	42	79.896	41.729	29.310	1.00	39.73
ATOM	32	OG1	THR A	42	79.355	40.410	29.352	1.00	40.73
ATOM	33	CG2	THR A	42	79.301	42.522	30.430	1.00	37.70
ATOM	34	N	TYR A	43	77.317	43.203	28.044	1.00	34.78
ATOM	35	CA	TYR A	43	76.299	44.283	28.125	1.00	33.64
ATOM	36	C	TYR A	43	76.198	44.822	29.571	1.00	32.40
ATOM	37	O	TYR A	43	75.706	44.146	30.453	1.00	29.56
ATOM	38	CB	TYR A	43	74.918	43.829	27.617	1.00	33.75
ATOM	39	CG	TYR A	43	73.894	44.942	27.562	1.00	32.19
ATOM	40	CD1	TYR A	43	73.804	45.770	26.453	1.00	31.74
ATOM	41	CD2	TYR A	43	72.986	45.146	28.603	1.00	31.84
ATOM	42	CE1	TYR A	43	72.874	46.782	26.373	1.00	30.93
ATOM	43	CE2	TYR A	43	72.047	46.157	28.533	1.00	29.54
ATOM	44	CZ	TYR A	43	71.978	46.965	27.408	1.00	31.35
ATOM	45	OH	TYR A	43	71.044	48.003	27.358	1.00	31.31
ATOM	46	N	THR A	44	76.629	46.056	29.758	1.00	32.15
ATOM	47	CA	THR A	44	76.897	46.588	31.100	1.00	33.67
ATOM	48	C	THR A	44	75.766	47.433	31.694	1.00	32.40
ATOM	49	O	THR A	44	74.842	47.835	30.988	1.00	31.22
ATOM	50	CB	THR A	44	78.193	47.433	31.066	1.00	33.26
ATOM	51	OG1	THR A	44	79.329	46.619	30.661	1.00	39.41
ATOM	52	CG2	THR A	44	78.592	47.767	32.396	1.00	36.50
ATOM	53	N	LEU A	45	75.859	47.711	32.989	1.00	31.13
ATOM	54	CA	LEU A	45	74.864	48.531	33.618	1.00	30.66
ATOM	55	C	LEU A	45	74.926	49.885	32.988	1.00	30.59
ATOM	56	O	LEU A	45	73.880	50.426	32.631	1.00	30.36

ATOM	57	CB	LEU	A	45	75.080	48.633	35.113	1.00	31.36
ATOM	58	CG	LEU	A	45	74.141	49.585	35.847	1.00	30.22
ATOM	59	CD1	LEU	A	45	72.682	49.261	35.589	1.00	32.27
ATOM	60	CD2	LEU	A	45	74.430	49.492	37.345	1.00	29.39
ATOM	61	N	THR	A	46	76.132	50.425	32.818	1.00	29.60
ATOM	62	CA	THR	A	46	76.279	51.719	32.170	1.00	30.54
ATOM	63	C	THR	A	46	75.693	51.704	30.747	1.00	30.14
ATOM	64	O	THR	A	46	75.083	52.682	30.318	1.00	30.45
ATOM	65	CB	THR	A	46	77.758	52.173	32.102	1.00	30.74
ATOM	66	OG1	THR	A	46	78.263	52.477	33.401	1.00	30.83
ATOM	67	CG2	THR	A	46	77.855	53.537	31.420	1.00	32.16
ATOM	68	N	ASP	A	47	75.874	50.598	30.031	1.00	30.76
ATOM	69	CA	ASP	A	47	75.344	50.455	28.666	1.00	31.14
ATOM	70	C	ASP	A	47	73.841	50.702	28.685	1.00	31.39
ATOM	71	O	ASP	A	47	73.303	51.474	27.910	1.00	32.18
ATOM	72	CB	ASP	A	47	75.630	49.064	28.116	1.00	30.01
ATOM	73	CG	ASP	A	47	77.082	48.892	27.660	1.00	29.29
ATOM	74	OD1	ASP	A	47	77.714	49.894	27.275	1.00	28.27
ATOM	75	OD2	ASP	A	47	77.672	47.793	27.663	1.00	24.95
ATOM	76	N	TYR	A	48	73.179	50.083	29.643	1.00	31.92
ATOM	77	CA	TYR	A	48	71.745	50.232	29.770	1.00	31.38
ATOM	78	C	TYR	A	48	71.353	51.637	30.150	1.00	31.54
ATOM	79	O	TYR	A	48	70.493	52.230	29.567	1.00	29.15
ATOM	80	CB	TYR	A	48	71.264	49.307	30.847	1.00	31.04
ATOM	81	CG	TYR	A	48	69.857	49.596	31.233	1.00	28.68
ATOM	82	CD1	TYR	A	48	68.846	49.629	30.284	1.00	27.94
ATOM	83	CD2	TYR	A	48	69.554	49.874	32.529	1.00	29.63
ATOM	84	CE1	TYR	A	48	67.534	49.907	30.636	1.00	32.09
ATOM	85	CE2	TYR	A	48	68.242	50.126	32.930	1.00	31.86
ATOM	86	CZ	TYR	A	48	67.229	50.153	31.984	1.00	32.29
ATOM	87	OH	TYR	A	48	65.943	50.438	32.420	1.00	31.53
ATOM	88	N	LEU	A	49	72.020	52.160	31.155	1.00	32.84
ATOM	89	CA	LEU	A	49	71.725	53.485	31.669	1.00	34.60
ATOM	90	C	LEU	A	49	72.100	54.588	30.697	1.00	35.66
ATOM	91	O	LEU	A	49	71.456	55.643	30.660	1.00	34.88
ATOM	92	CB	LEU	A	49	72.533	53.695	32.944	1.00	34.83
ATOM	93	CG	LEU	A	49	71.926	53.503	34.334	1.00	37.04
ATOM	94	CD1	LEU	A	49	70.447	52.989	34.355	1.00	37.50
ATOM	95	CD2	LEU	A	49	72.853	52.643	35.176	1.00	37.79
ATOM	96	N	LYS	A	50	73.161	54.374	29.922	1.00	36.93
ATOM	97	CA	LYS	A	50	73.625	55.444	29.055	1.00	39.10
ATOM	98	C	LYS	A	50	73.139	55.299	27.618	1.00	40.54
ATOM	99	O	LYS	A	50	73.333	56.202	26.789	1.00	39.65
ATOM	100	CB	LYS	A	50	75.147	55.568	29.166	1.00	39.68
ATOM	101	CG	LYS	A	50	75.559	55.978	30.583	1.00	41.11
ATOM	102	CD	LYS	A	50	74.992	57.392	30.909	1.00	43.27
ATOM	103	CE	LYS	A	50	75.551	57.976	32.226	1.00	45.34
ATOM	104	NZ	LYS	A	50	75.091	59.395	32.481	1.00	44.42
ATOM	105	N	ASN	A	51	72.470	54.165	27.363	1.00	41.96
ATOM	106	CA	ASN	A	51	71.929	53.851	26.061	1.00	43.12
ATOM	107	C	ASN	A	51	73.048	53.801	25.038	1.00	43.29
ATOM	108	O	ASN	A	51	73.003	54.506	24.069	1.00	43.46
ATOM	109	CB	ASN	A	51	70.928	54.919	25.603	1.00	43.38
ATOM	110	CG	ASN	A	51	69.665	54.976	26.443	1.00	46.23
ATOM	111	OD1	ASN	A	51	69.127	53.945	26.903	1.00	48.91
ATOM	112	ND2	ASN	A	51	69.151	56.193	26.616	1.00	44.86
ATOM	113	N	THR	A	52	74.038	52.954	25.254	1.00	44.16
ATOM	114	CA	THR	A	52	75.150	52.802	24.336	1.00	44.31
ATOM	115	C	THR	A	52	74.698	52.189	23.020	1.00	44.61
ATOM	116	O	THR	A	52	75.284	52.429	21.971	1.00	43.95
ATOM	117	CB	THR	A	52	76.166	51.790	24.900	1.00	44.63
ATOM	118	OG1	THR	A	52	76.595	52.157	26.200	1.00	44.54
ATOM	119	CG2	THR	A	52	77.446	51.804	24.084	1.00	44.92
ATOM	120	N	TYR	A	53	73.707	51.314	23.125	1.00	44.37
ATOM	121	CA	TYR	A	53	73.225	50.540	22.003	1.00	43.98
ATOM	122	C	TYR	A	53	71.765	50.895	21.754	1.00	43.98
ATOM	123	O	TYR	A	53	70.856	50.359	22.395	1.00	44.20
ATOM	124	CB	TYR	A	53	73.388	49.068	22.344	1.00	43.63
ATOM	125	CG	TYR	A	53	74.835	48.621	22.567	1.00	43.01
ATOM	126	CD1	TYR	A	53	75.744	48.545	21.521	1.00	39.95

ATOM	127	CD2	TYR	A	53	75.277	48.227	23.840	1.00	42.07
ATOM	128	CE1	TYR	A	53	77.071	48.119	21.740	1.00	38.67
ATOM	129	CE2	TYR	A	53	76.574	47.801	24.062	1.00	41.06
ATOM	130	CZ	TYR	A	53	77.471	47.744	23.009	1.00	41.11
ATOM	131	OH	TYR	A	53	78.754	47.311	23.258	1.00	37.02
ATOM	132	N	ARG	A	54	71.538	51.831	20.841	1.00	44.11
ATOM	133	CA	ARG	A	54	70.188	52.335	20.571	1.00	44.03
ATOM	134	C	ARG	A	54	69.433	51.486	19.553	1.00	42.21
ATOM	135	O	ARG	A	54	70.021	51.014	18.600	1.00	41.54
ATOM	136	CB	ARG	A	54	70.279	53.764	20.036	1.00	45.08
ATOM	137	CG	ARG	A	54	70.626	54.779	21.120	1.00	51.23
ATOM	138	CD	ARG	A	54	70.507	56.270	20.718	1.00	56.63
ATOM	139	NE	ARG	A	54	71.033	57.116	21.796	1.00	61.87
ATOM	140	CZ	ARG	A	54	70.352	57.501	22.887	1.00	65.60
ATOM	141	NH1	ARG	A	54	69.074	57.152	23.064	1.00	66.87
ATOM	142	NH2	ARG	A	54	70.958	58.252	23.806	1.00	66.50
ATOM	143	N	LEU	A	55	68.145	51.285	19.790	1.00	40.64
ATOM	144	CA	LEU	A	55	67.256	50.674	18.818	1.00	40.22
ATOM	145	C	LEU	A	55	66.805	51.807	17.946	1.00	39.01
ATOM	146	O	LEU	A	55	66.299	52.781	18.459	1.00	39.01
ATOM	147	CB	LEU	A	55	65.976	50.151	19.461	1.00	40.01
ATOM	148	CG	LEU	A	55	65.960	48.891	20.292	1.00	40.34
ATOM	149	CD1	LEU	A	55	64.533	48.667	20.703	1.00	42.07
ATOM	150	CD2	LEU	A	55	66.447	47.705	19.493	1.00	40.99
ATOM	151	N	LYS	A	56	66.977	51.709	16.641	1.00	38.06
ATOM	152	CA	LYS	A	56	66.403	52.735	15.760	1.00	37.23
ATOM	153	C	LYS	A	56	64.947	52.390	15.492	1.00	35.67
ATOM	154	O	LYS	A	56	64.572	51.223	15.475	1.00	33.89
ATOM	155	CB	LYS	A	56	67.153	52.841	14.441	1.00	37.02
ATOM	156	CG	LYS	A	56	68.642	53.149	14.570	1.00	40.24
ATOM	157	CD	LYS	A	56	69.188	54.004	13.350	1.00	45.04
ATOM	158	CE	LYS	A	56	70.602	53.570	12.876	1.00	46.95
ATOM	159	NZ	LYS	A	56	70.582	52.395	11.891	1.00	48.99
ATOM	160	N	LEU	A	57	64.165	53.431	15.248	1.00	35.61
ATOM	161	CA	LEU	A	57	62.723	53.375	15.048	1.00	35.84
ATOM	162	C	LEU	A	57	62.393	54.023	13.711	1.00	34.84
ATOM	163	O	LEU	A	57	63.258	54.595	13.092	1.00	34.28
ATOM	164	CB	LEU	A	57	62.053	54.211	16.149	1.00	36.81
ATOM	165	CG	LEU	A	57	62.147	53.711	17.602	1.00	40.98
ATOM	166	CD1	LEU	A	57	61.272	54.531	18.559	1.00	43.05
ATOM	167	CD2	LEU	A	57	61.679	52.265	17.647	1.00	45.26
ATOM	168	N	TYR	A	58	61.132	53.959	13.294	1.00	33.45
ATOM	169	CA	TYR	A	58	60.651	54.643	12.104	1.00	32.51
ATOM	170	C	TYR	A	58	59.214	55.080	12.403	1.00	32.52
ATOM	171	O	TYR	A	58	58.252	54.433	12.024	1.00	31.59
ATOM	172	CB	TYR	A	58	60.725	53.744	10.834	1.00	31.99
ATOM	173	CG	TYR	A	58	60.721	54.535	9.547	1.00	31.12
ATOM	174	CD1	TYR	A	58	59.532	55.003	9.017	1.00	30.51
ATOM	175	CD2	TYR	A	58	61.920	54.846	8.867	1.00	32.94
ATOM	176	CE1	TYR	A	58	59.498	55.751	7.824	1.00	29.91
ATOM	177	CE2	TYR	A	58	61.905	55.594	7.651	1.00	29.33
ATOM	178	CZ	TYR	A	58	60.683	56.039	7.163	1.00	30.84
ATOM	179	OH	TYR	A	58	60.582	56.782	6.032	1.00	32.25
ATOM	180	N	SER	A	59	59.089	56.188	13.114	1.00	32.95
ATOM	181	CA	SER	A	59	57.804	56.732	13.509	1.00	32.96
ATOM	182	C	SER	A	59	57.343	57.664	12.452	1.00	32.63
ATOM	183	O	SER	A	59	57.984	58.673	12.171	1.00	33.29
ATOM	184	CB	SER	A	59	57.949	57.434	14.846	1.00	33.95
ATOM	185	OG	SER	A	59	58.527	56.484	15.747	1.00	36.22
ATOM	186	N	LEU	A	60	56.232	57.311	11.842	1.00	31.26
ATOM	187	CA	LEU	A	60	55.727	58.068	10.744	1.00	31.83
ATOM	188	C	LEU	A	60	54.307	58.510	11.018	1.00	31.39
ATOM	189	O	LEU	A	60	53.623	57.907	11.800	1.00	31.01
ATOM	190	CB	LEU	A	60	55.850	57.211	9.458	1.00	31.26
ATOM	191	CG	LEU	A	60	54.798	56.366	8.730	1.00	32.72
ATOM	192	CD1	LEU	A	60	55.544	55.212	7.978	1.00	32.95
ATOM	193	CD2	LEU	A	60	53.669	55.791	9.492	1.00	30.55
ATOM	194	N	ARG	A	61	53.875	59.568	10.352	1.00	32.40
ATOM	195	CA	ARG	A	61	52.511	60.032	10.491	1.00	33.55
ATOM	196	C	ARG	A	61	51.777	60.077	9.127	1.00	32.37

ATOM	197	O	ARG	A	61	52.057	60.942	8.303	1.00	31.77
ATOM	198	CB	ARG	A	61	52.524	61.429	11.117	1.00	34.89
ATOM	199	CG	ARG	A	61	53.286	61.606	12.500	1.00	39.34
ATOM	200	CD	ARG	A	61	52.946	62.994	13.190	1.00	44.62
ATOM	201	NE	ARG	A	61	53.746	63.318	14.376	1.00	50.16
ATOM	202	CZ	ARG	A	61	53.610	64.448	15.089	1.00	52.70
ATOM	203	NH1	ARG	A	61	52.722	65.363	14.729	1.00	53.04
ATOM	204	NH2	ARG	A	61	54.379	64.680	16.147	1.00	54.30
ATOM	205	N	TRP	A	62	50.840	59.171	8.877	1.00	31.29
ATOM	206	CA	TRP	A	62	50.101	59.222	7.613	1.00	31.61
ATOM	207	C	TRP	A	62	49.282	60.518	7.540	1.00	32.94
ATOM	208	O	TRP	A	62	48.679	60.886	8.541	1.00	33.73
ATOM	209	CB	TRP	A	62	49.159	58.028	7.468	1.00	30.78
ATOM	210	CG	TRP	A	62	49.815	56.694	7.295	1.00	28.26
ATOM	211	CD1	TRP	A	62	49.909	55.690	8.221	1.00	28.81
ATOM	212	CD2	TRP	A	62	50.452	56.191	6.111	1.00	26.95
ATOM	213	NE1	TRP	A	62	50.567	54.600	7.679	1.00	26.42
ATOM	214	CE2	TRP	A	62	50.911	54.887	6.392	1.00	21.80
ATOM	215	CE3	TRP	A	62	50.697	56.721	4.835	1.00	27.04
ATOM	216	CZ2	TRP	A	62	51.573	54.123	5.468	1.00	23.60
ATOM	217	CZ3	TRP	A	62	51.353	55.951	3.924	1.00	25.98
ATOM	218	CH2	TRP	A	62	51.804	54.665	4.251	1.00	23.38
ATOM	219	N	ILE	A	63	49.293	61.219	6.398	1.00	32.81
ATOM	220	CA	ILE	A	63	48.442	62.378	6.202	1.00	33.78
ATOM	221	C	ILE	A	63	47.425	62.160	5.121	1.00	33.73
ATOM	222	O	ILE	A	63	46.623	63.047	4.865	1.00	34.24
ATOM	223	CB	ILE	A	63	49.201	63.689	5.868	1.00	34.14
ATOM	224	CG1	ILE	A	63	50.038	63.552	4.604	1.00	34.97
ATOM	225	CG2	ILE	A	63	50.039	64.100	7.046	1.00	35.73
ATOM	226	CD1	ILE	A	63	51.006	64.668	4.426	1.00	35.37
ATOM	227	N	SER	A	64	47.466	61.022	4.452	1.00	33.90
ATOM	228	CA	SER	A	64	46.484	60.751	3.424	1.00	34.57
ATOM	229	C	SER	A	64	46.523	59.285	3.113	1.00	34.76
ATOM	230	O	SER	A	64	47.091	58.506	3.861	1.00	33.73
ATOM	231	CB	SER	A	64	46.730	61.583	2.159	1.00	35.22
ATOM	232	OG	SER	A	64	47.912	61.164	1.494	1.00	36.37
ATOM	233	N	ASP	A	65	45.885	58.905	2.021	1.00	35.24
ATOM	234	CA	ASP	A	65	45.871	57.519	1.626	1.00	36.01
ATOM	235	C	ASP	A	65	47.214	57.090	1.102	1.00	34.80
ATOM	236	O	ASP	A	65	47.463	55.895	1.025	1.00	35.68
ATOM	237	CB	ASP	A	65	44.807	57.283	0.549	1.00	36.24
ATOM	238	CG	ASP	A	65	44.905	58.287	-0.607	1.00	40.58
ATOM	239	OD1	ASP	A	65	45.448	59.403	-0.383	1.00	44.21
ATOM	240	OD2	ASP	A	65	44.438	58.053	-1.762	1.00	44.77
ATOM	241	N	HIS	A	66	48.065	58.052	0.756	1.00	34.26
ATOM	242	CA	HIS	A	66	49.333	57.704	0.123	1.00	34.12
ATOM	243	C	HIS	A	66	50.612	58.510	0.502	1.00	33.56
ATOM	244	O	HIS	A	66	51.687	58.263	-0.053	1.00	33.66
ATOM	245	CB	HIS	A	66	49.130	57.697	-1.392	1.00	34.13
ATOM	246	CG	HIS	A	66	48.904	59.053	-1.966	1.00	37.13
ATOM	247	ND1	HIS	A	66	47.755	59.778	-1.723	1.00	39.90
ATOM	248	CD2	HIS	A	66	49.681	59.826	-2.760	1.00	39.35
ATOM	249	CE1	HIS	A	66	47.842	60.947	-2.337	1.00	42.55
ATOM	250	NE2	HIS	A	66	48.999	61.003	-2.975	1.00	41.85
ATOM	251	N	GLU	A	67	50.525	59.434	1.455	1.00	31.81
ATOM	252	CA	GLU	A	67	51.679	60.192	1.908	1.00	31.27
ATOM	253	C	GLU	A	67	51.826	60.118	3.419	1.00	30.54
ATOM	254	O	GLU	A	67	50.830	59.974	4.152	1.00	27.91
ATOM	255	CB	GLU	A	67	51.592	61.675	1.534	1.00	31.52
ATOM	256	CG	GLU	A	67	51.635	62.014	0.057	1.00	34.42
ATOM	257	CD	GLU	A	67	51.862	63.498	-0.160	1.00	39.59
ATOM	258	OE1	GLU	A	67	51.272	64.312	0.589	1.00	43.25
ATOM	259	OE2	GLU	A	67	52.662	63.867	-1.046	1.00	43.29
ATOM	260	N	TYR	A	68	53.078	60.194	3.882	1.00	30.78
ATOM	261	CA	TYR	A	68	53.349	60.283	5.313	1.00	31.62
ATOM	262	C	TYR	A	68	54.434	61.302	5.593	1.00	32.69
ATOM	263	O	TYR	A	68	55.267	61.578	4.717	1.00	31.58
ATOM	264	CB	TYR	A	68	53.688	58.928	5.934	1.00	31.56
ATOM	265	CG	TYR	A	68	54.984	58.248	5.506	1.00	30.01
ATOM	266	CD1	TYR	A	68	56.212	58.660	6.002	1.00	28.17

ATOM	267	CD2	TYR	A	68	54.964	57.150	4.625	1.00	29.70
ATOM	268	CE1	TYR	A	68	57.411	58.000	5.635	1.00	26.63
ATOM	269	CE2	TYR	A	68	56.142	56.493	4.245	1.00	28.44
ATOM	270	CZ	TYR	A	68	57.372	56.925	4.748	1.00	27.85
ATOM	271	OH	TYR	A	68	58.550	56.280	4.371	1.00	30.35
ATOM	272	N	LEU	A	69	54.400	61.860	6.810	1.00	33.87
ATOM	273	CA	LEU	A	69	55.400	62.798	7.294	1.00	35.36
ATOM	274	C	LEU	A	69	56.359	62.028	8.184	1.00	36.95
ATOM	275	O	LEU	A	69	55.947	61.095	8.862	1.00	36.55
ATOM	276	CB	LEU	A	69	54.767	63.958	8.060	1.00	35.63
ATOM	277	CG	LEU	A	69	53.889	64.916	7.246	1.00	35.92
ATOM	278	CD1	LEU	A	69	53.290	66.024	8.122	1.00	37.72
ATOM	279	CD2	LEU	A	69	54.687	65.522	6.120	1.00	37.17
ATOM	280	N	TYR	A	70	57.642	62.392	8.132	1.00	39.01
ATOM	281	CA	TYR	A	70	58.696	61.726	8.897	1.00	41.80
ATOM	282	C	TYR	A	70	59.715	62.785	9.305	1.00	44.87
ATOM	283	O	TYR	A	70	60.156	63.617	8.490	1.00	43.81
ATOM	284	CB	TYR	A	70	59.352	60.618	8.067	1.00	41.37
ATOM	285	CG	TYR	A	70	60.490	59.832	8.721	1.00	41.66
ATOM	286	CD1	TYR	A	70	60.250	58.923	9.740	1.00	42.66
ATOM	287	CD2	TYR	A	70	61.792	59.957	8.267	1.00	42.62
ATOM	288	CE1	TYR	A	70	61.274	58.190	10.309	1.00	41.91
ATOM	289	CE2	TYR	A	70	62.826	59.218	8.823	1.00	43.07
ATOM	290	CZ	TYR	A	70	62.564	58.351	9.847	1.00	43.67
ATOM	291	OH	TYR	A	70	63.594	57.643	10.399	1.00	43.42
ATOM	292	N	LYS	A	71	60.057	62.793	10.582	1.00	48.84
ATOM	293	CA	LYS	A	71	60.980	63.806	11.069	1.00	52.37
ATOM	294	C	LYS	A	71	62.343	63.205	11.258	1.00	54.20
ATOM	295	O	LYS	A	71	62.560	62.450	12.201	1.00	54.67
ATOM	296	CB	LYS	A	71	60.496	64.499	12.359	1.00	53.08
ATOM	297	CG	LYS	A	71	59.964	63.608	13.478	1.00	56.42
ATOM	298	CD	LYS	A	71	59.417	64.468	14.680	1.00	60.93
ATOM	299	CE	LYS	A	71	58.518	63.648	15.658	1.00	63.37
ATOM	300	NZ	LYS	A	71	57.109	63.396	15.156	1.00	64.08
ATOM	301	N	GLN	A	72	63.230	63.514	10.306	1.00	56.38
ATOM	302	CA	GLN	A	72	64.616	63.082	10.317	1.00	57.30
ATOM	303	C	GLN	A	72	65.450	64.235	10.843	1.00	58.19
ATOM	304	O	GLN	A	72	65.382	65.341	10.304	1.00	58.25
ATOM	305	CB	GLN	A	72	65.073	62.737	8.905	1.00	57.62
ATOM	306	CG	GLN	A	72	66.361	61.951	8.881	1.00	59.06
ATOM	307	CD	GLN	A	72	66.409	60.910	7.782	1.00	59.25
ATOM	308	OE1	GLN	A	72	66.596	61.238	6.613	1.00	60.39
ATOM	309	NE2	GLN	A	72	66.273	59.651	8.160	1.00	59.37
ATOM	310	N	GLU	A	73	66.258	63.976	11.872	1.00	58.85
ATOM	311	CA	GLU	A	73	67.020	65.043	12.493	1.00	59.44
ATOM	312	C	GLU	A	73	65.903	65.938	12.992	1.00	58.82
ATOM	313	O	GLU	A	73	65.064	65.470	13.791	1.00	58.69
ATOM	314	CB	GLU	A	73	67.963	65.718	11.481	1.00	59.71
ATOM	315	CG	GLU	A	73	69.086	64.774	11.062	1.00	62.37
ATOM	316	CD	GLU	A	73	69.598	64.988	9.647	1.00	64.62
ATOM	317	OE1	GLU	A	73	69.204	65.973	8.986	1.00	66.20
ATOM	318	OE2	GLU	A	73	70.406	64.154	9.195	1.00	66.62
ATOM	319	N	ASN	A	74	65.859	67.193	12.548	1.00	57.47
ATOM	320	CA	ASN	A	74	64.689	67.994	12.867	1.00	56.86
ATOM	321	C	ASN	A	74	63.977	68.548	11.619	1.00	54.85
ATOM	322	O	ASN	A	74	63.092	69.397	11.698	1.00	55.01
ATOM	323	CB	ASN	A	74	65.015	69.039	13.938	1.00	57.63
ATOM	324	CG	ASN	A	74	65.399	68.391	15.263	1.00	59.00
ATOM	325	OD1	ASN	A	74	66.429	67.702	15.356	1.00	61.58
ATOM	326	ND2	ASN	A	74	64.560	68.574	16.283	1.00	60.07
ATOM	327	N	ASN	A	75	64.330	68.016	10.462	1.00	52.29
ATOM	328	CA	ASN	A	75	63.558	68.319	9.274	1.00	50.31
ATOM	329	C	ASN	A	75	62.360	67.397	9.195	1.00	48.13
ATOM	330	O	ASN	A	75	62.425	66.222	9.570	1.00	48.00
ATOM	331	CB	ASN	A	75	64.410	68.186	8.027	1.00	50.26
ATOM	332	CG	ASN	A	75	65.573	69.129	8.049	1.00	50.23
ATOM	333	OD1	ASN	A	75	65.446	70.282	7.691	1.00	51.42
ATOM	334	ND2	ASN	A	75	66.697	68.661	8.542	1.00	50.94
ATOM	335	N	ILE	A	76	61.246	67.953	8.750	1.00	44.92
ATOM	336	CA	ILE	A	76	60.072	67.153	8.529	1.00	42.61

ATOM	337	C	ILE	A	76	60.024	66.853	7.052	1.00	39.17
ATOM	338	O	ILE	A	76	60.026	67.733	6.247	1.00	38.33
ATOM	339	CB	ILE	A	76	58.822	67.869	9.015	1.00	42.75
ATOM	340	CG1	ILE	A	76	58.971	68.180	10.512	1.00	44.18
ATOM	341	CG2	ILE	A	76	57.605	67.001	8.788	1.00	43.04
ATOM	342	CD1	ILE	A	76	57.881	69.115	11.061	1.00	46.10
ATOM	343	N	LEU	A	77	60.002	65.581	6.731	1.00	37.03
ATOM	344	CA	LEU	A	77	60.044	65.121	5.359	1.00	35.58
ATOM	345	C	LEU	A	77	58.709	64.557	4.990	1.00	34.01
ATOM	346	O	LEU	A	77	58.071	63.900	5.786	1.00	33.20
ATOM	347	CB	LEU	A	77	61.059	63.991	5.200	1.00	34.83
ATOM	348	CG	LEU	A	77	62.442	64.220	5.769	1.00	35.71
ATOM	349	CD1	LEU	A	77	63.355	63.054	5.417	1.00	36.23
ATOM	350	CD2	LEU	A	77	62.997	65.543	5.208	1.00	37.79
ATOM	351	N	VAL	A	78	58.283	64.827	3.775	1.00	32.73
ATOM	352	CA	VAL	A	78	57.109	64.165	3.268	1.00	32.11
ATOM	353	C	VAL	A	78	57.565	63.084	2.282	1.00	31.94
ATOM	354	O	VAL	A	78	58.464	63.296	1.464	1.00	29.80
ATOM	355	CB	VAL	A	78	56.074	65.137	2.673	1.00	33.08
ATOM	356	CG1	VAL	A	78	56.620	66.060	1.620	1.00	34.71
ATOM	357	CG2	VAL	A	78	54.851	64.359	2.110	1.00	34.03
ATOM	358	N	PHE	A	79	56.976	61.907	2.459	1.00	30.10
ATOM	359	CA	PHE	A	79	57.167	60.723	1.632	1.00	30.28
ATOM	360	C	PHE	A	79	55.902	60.331	0.855	1.00	29.50
ATOM	361	O	PHE	A	79	54.796	60.439	1.369	1.00	28.83
ATOM	362	CB	PHE	A	79	57.478	59.542	2.541	1.00	30.42
ATOM	363	CG	PHE	A	79	58.882	59.521	3.032	1.00	30.64
ATOM	364	CD1	PHE	A	79	59.339	60.474	3.937	1.00	30.69
ATOM	365	CD2	PHE	A	79	59.753	58.553	2.591	1.00	31.60
ATOM	366	CE1	PHE	A	79	60.651	60.449	4.378	1.00	32.56
ATOM	367	CE2	PHE	A	79	61.078	58.533	3.040	1.00	31.97
ATOM	368	CZ	PHE	A	79	61.514	59.483	3.931	1.00	31.51
ATOM	369	N	ASN	A	80	56.095	59.856	-0.370	1.00	28.48
ATOM	370	CA	ASN	A	80	55.053	59.271	-1.194	1.00	28.45
ATOM	371	C	ASN	A	80	55.145	57.756	-1.039	1.00	28.68
ATOM	372	O	ASN	A	80	56.177	57.195	-1.298	1.00	29.34
ATOM	373	CB	ASN	A	80	55.280	59.664	-2.656	1.00	28.49
ATOM	374	CG	ASN	A	80	54.274	59.019	-3.593	1.00	28.68
ATOM	375	OD1	ASN	A	80	54.264	57.785	-3.747	1.00	31.70
ATOM	376	ND2	ASN	A	80	53.440	59.845	-4.238	1.00	26.72
ATOM	377	N	ALA	A	81	54.108	57.081	-0.575	1.00	28.87
ATOM	378	CA	ALA	A	81	54.221	55.647	-0.280	1.00	29.20
ATOM	379	C	ALA	A	81	54.367	54.692	-1.486	1.00	30.47
ATOM	380	O	ALA	A	81	55.068	53.667	-1.391	1.00	28.22
ATOM	381	CB	ALA	A	81	53.055	55.226	0.529	1.00	29.86
ATOM	382	N	GLU	A	82	53.692	55.009	-2.584	1.00	30.69
ATOM	383	CA	GLU	A	82	53.690	54.163	-3.765	1.00	32.90
ATOM	384	C	GLU	A	82	55.085	54.085	-4.380	1.00	32.70
ATOM	385	O	GLU	A	82	55.584	53.005	-4.642	1.00	33.55
ATOM	386	CB	GLU	A	82	52.762	54.778	-4.799	1.00	34.29
ATOM	387	CG	GLU	A	82	51.904	53.921	-5.750	1.00	39.11
ATOM	388	CD	GLU	A	82	51.966	52.395	-5.602	1.00	44.08
ATOM	389	OE1	GLU	A	82	51.733	51.877	-4.479	1.00	44.47
ATOM	390	OE2	GLU	A	82	52.146	51.715	-6.659	1.00	45.29
ATOM	391	N	TYR	A	83	55.711	55.239	-4.577	1.00	32.46
ATOM	392	CA	TYR	A	83	56.988	55.343	-5.293	1.00	31.80
ATOM	393	C	TYR	A	83	58.174	55.575	-4.375	1.00	32.14
ATOM	394	O	TYR	A	83	59.315	55.439	-4.779	1.00	31.65
ATOM	395	CB	TYR	A	83	56.894	56.474	-6.341	1.00	30.74
ATOM	396	CG	TYR	A	83	55.736	56.289	-7.262	1.00	27.96
ATOM	397	CD1	TYR	A	83	55.723	55.245	-8.168	1.00	26.86
ATOM	398	CD2	TYR	A	83	54.612	57.127	-7.189	1.00	30.33
ATOM	399	CE1	TYR	A	83	54.640	55.039	-9.025	1.00	30.17
ATOM	400	CE2	TYR	A	83	53.510	56.937	-8.014	1.00	30.63
ATOM	401	CZ	TYR	A	83	53.532	55.881	-8.934	1.00	32.85
ATOM	402	OH	TYR	A	83	52.481	55.683	-9.777	1.00	32.80
ATOM	403	N	GLY	A	84	57.916	55.975	-3.135	1.00	32.26
ATOM	404	CA	GLY	A	84	58.994	56.133	-2.186	1.00	31.32
ATOM	405	C	GLY	A	84	59.847	57.373	-2.335	1.00	31.68
ATOM	406	O	GLY	A	84	60.834	57.521	-1.613	1.00	31.73

ATOM	407	N	ASN	A	85	59.498	58.278	-3.245	1.00	31.53
ATOM	408	CA	ASN	A	85	60.243	59.498	-3.337	1.00	30.97
ATOM	409	C	ASN	A	85	59.864	60.412	-2.169	1.00	32.48
ATOM	410	O	ASN	A	85	58.797	60.259	-1.590	1.00	31.04
ATOM	411	CB	ASN	A	85	60.048	60.160	-4.684	1.00	31.28
ATOM	412	CG	ASN	A	85	58.654	60.659	-4.935	1.00	30.02
ATOM	413	OD1	ASN	A	85	57.696	59.886	-5.033	1.00	28.38
ATOM	414	ND2	ASN	A	85	58.543	61.981	-5.122	1.00	30.08
ATOM	415	N	SER	A	86	60.738	61.346	-1.819	1.00	33.04
ATOM	416	CA	SER	A	86	60.474	62.209	-0.704	1.00	34.61
ATOM	417	C	SER	A	86	61.111	63.576	-0.858	1.00	35.31
ATOM	418	O	SER	A	86	61.992	63.777	-1.699	1.00	34.45
ATOM	419	CB	SER	A	86	60.946	61.545	0.578	1.00	34.40
ATOM	420	OG	SER	A	86	62.361	61.625	0.669	1.00	37.11
ATOM	421	N	SER	A	87	60.633	64.524	-0.059	1.00	36.39
ATOM	422	CA	SER	A	87	61.155	65.892	-0.090	1.00	37.40
ATOM	423	C	SER	A	87	61.047	66.508	1.265	1.00	38.73
ATOM	424	O	SER	A	87	60.455	65.924	2.173	1.00	37.89
ATOM	425	CB	SER	A	87	60.383	66.761	-1.079	1.00	37.51
ATOM	426	OG	SER	A	87	59.126	66.202	-1.378	1.00	38.91
ATOM	427	N	VAL	A	88	61.589	67.708	1.409	1.00	39.45
ATOM	428	CA	VAL	A	88	61.470	68.393	2.679	1.00	41.20
ATOM	429	C	VAL	A	88	60.213	69.269	2.720	1.00	41.11
ATOM	430	O	VAL	A	88	59.995	70.168	1.903	1.00	41.19
ATOM	431	CB	VAL	A	88	62.803	69.144	3.105	1.00	42.08
ATOM	432	CG1	VAL	A	88	63.609	69.658	1.901	1.00	44.39
ATOM	433	CG2	VAL	A	88	62.484	70.266	4.121	1.00	42.80
ATOM	434	N	PHE	A	89	59.354	68.923	3.668	1.00	42.02
ATOM	435	CA	PHE	A	89	58.158	69.691	3.946	1.00	42.61
ATOM	436	C	PHE	A	89	58.515	70.913	4.740	1.00	42.65
ATOM	437	O	PHE	A	89	58.174	72.006	4.372	1.00	40.97
ATOM	438	CB	PHE	A	89	57.175	68.901	4.774	1.00	43.24
ATOM	439	CG	PHE	A	89	55.908	69.650	5.053	1.00	45.25
ATOM	440	CD1	PHE	A	89	55.192	70.213	4.019	1.00	48.71
ATOM	441	CD2	PHE	A	89	55.450	69.813	6.342	1.00	47.88
ATOM	442	CE1	PHE	A	89	54.028	70.900	4.266	1.00	50.50
ATOM	443	CE2	PHE	A	89	54.292	70.492	6.594	1.00	48.14
ATOM	444	CZ	PHE	A	89	53.578	71.034	5.562	1.00	50.14
ATOM	445	N	LEU	A	90	59.219	70.716	5.843	1.00	44.35
ATOM	446	CA	LEU	A	90	59.602	71.839	6.662	1.00	46.14
ATOM	447	C	LEU	A	90	61.058	71.751	7.079	1.00	46.98
ATOM	448	O	LEU	A	90	61.460	70.856	7.826	1.00	45.46
ATOM	449	CB	LEU	A	90	58.679	71.910	7.874	1.00	46.70
ATOM	450	CG	LEU	A	90	58.692	73.226	8.634	1.00	47.52
ATOM	451	CD1	LEU	A	90	57.850	73.069	9.878	1.00	48.98
ATOM	452	CD2	LEU	A	90	60.091	73.614	9.015	1.00	48.42
ATOM	453	N	GLU	A	91	61.852	72.688	6.570	1.00	49.09
ATOM	454	CA	GLU	A	91	63.274	72.711	6.877	1.00	51.12
ATOM	455	C	GLU	A	91	63.458	72.982	8.338	1.00	52.09
ATOM	456	O	GLU	A	91	62.770	73.830	8.903	1.00	51.30
ATOM	457	CB	GLU	A	91	63.988	73.808	6.125	1.00	51.65
ATOM	458	CG	GLU	A	91	64.529	73.406	4.785	1.00	54.17
ATOM	459	CD	GLU	A	91	64.541	74.582	3.827	1.00	57.08
ATOM	460	OE1	GLU	A	91	63.540	75.332	3.832	1.00	58.58
ATOM	461	OE2	GLU	A	91	65.527	74.747	3.080	1.00	57.71
ATOM	462	N	ASN	A	92	64.419	72.274	8.920	1.00	54.09
ATOM	463	CA	ASN	A	92	64.758	72.390	10.323	1.00	55.48
ATOM	464	C	ASN	A	92	65.158	73.822	10.655	1.00	56.47
ATOM	465	O	ASN	A	92	65.072	74.238	11.798	1.00	56.53
ATOM	466	CB	ASN	A	92	65.891	71.404	10.679	1.00	56.01
ATOM	467	CG	ASN	A	92	67.215	71.747	9.995	1.00	56.92
ATOM	468	OD1	ASN	A	92	67.374	72.851	9.475	1.00	58.85
ATOM	469	ND2	ASN	A	92	68.167	70.801	9.994	1.00	55.37
ATOM	470	N	SER	A	93	65.580	74.568	9.641	1.00	57.67
ATOM	471	CA	SER	A	93	65.998	75.956	9.812	1.00	59.12
ATOM	472	C	SER	A	93	64.889	77.022	9.927	1.00	59.80
ATOM	473	O	SER	A	93	65.141	78.116	10.453	1.00	59.65
ATOM	474	CB	SER	A	93	66.904	76.360	8.639	1.00	59.16
ATOM	475	OG	SER	A	93	66.789	75.443	7.558	1.00	60.69
ATOM	476	N	THR	A	94	63.683	76.718	9.452	1.00	60.44

ATOM	477	CA	THR	A	94	62.608	77.720	9.370	1.00	61.40
ATOM	478	C	THR	A	94	62.407	78.609	10.610	1.00	61.76
ATOM	479	O	THR	A	94	62.315	79.829	10.506	1.00	61.08
ATOM	480	CB	THR	A	94	61.272	77.027	9.052	1.00	61.66
ATOM	481	OG1	THR	A	94	61.411	76.211	7.881	1.00	63.17
ATOM	482	CG2	THR	A	94	60.204	78.042	8.677	1.00	62.07
ATOM	483	N	PHE	A	95	62.318	77.995	11.781	1.00	62.61
ATOM	484	CA	PHE	A	95	62.044	78.753	12.990	1.00	63.25
ATOM	485	C	PHE	A	95	63.298	79.067	13.829	1.00	64.05
ATOM	486	O	PHE	A	95	63.249	79.072	15.050	1.00	63.10
ATOM	487	CB	PHE	A	95	60.982	78.015	13.811	1.00	63.31
ATOM	488	CG	PHE	A	95	59.767	77.614	13.009	1.00	61.93
ATOM	489	CD1	PHE	A	95	58.862	78.565	12.582	1.00	60.41
ATOM	490	CD2	PHE	A	95	59.536	76.282	12.687	1.00	60.39
ATOM	491	CE1	PHE	A	95	57.746	78.197	11.854	1.00	59.51
ATOM	492	CE2	PHE	A	95	58.433	75.917	11.967	1.00	59.98
ATOM	493	CZ	PHE	A	95	57.531	76.881	11.544	1.00	59.56
ATOM	494	N	ASP	A	96	64.418	79.345	13.163	1.00	65.57
ATOM	495	CA	ASP	A	96	65.651	79.720	13.874	1.00	66.85
ATOM	496	C	ASP	A	96	65.436	80.979	14.732	1.00	67.10
ATOM	497	O	ASP	A	96	65.902	81.043	15.863	1.00	67.29
ATOM	498	CB	ASP	A	96	66.821	79.952	12.899	1.00	67.18
ATOM	499	CG	ASP	A	96	67.442	78.649	12.383	1.00	68.19
ATOM	500	OD1	ASP	A	96	66.948	77.554	12.742	1.00	69.92
ATOM	501	OD2	ASP	A	96	68.432	78.630	11.613	1.00	68.66
ATOM	502	N	GLU	A	97	64.725	81.968	14.197	1.00	67.56
ATOM	503	CA	GLU	A	97	64.459	83.209	14.936	1.00	67.97
ATOM	504	C	GLU	A	97	63.127	83.189	15.714	1.00	67.64
ATOM	505	O	GLU	A	97	62.552	84.234	16.000	1.00	67.78
ATOM	506	CB	GLU	A	97	64.515	84.432	13.994	1.00	67.97
ATOM	507	CG	GLU	A	97	65.920	84.765	13.490	1.00	68.74
ATOM	508	CD	GLU	A	97	66.349	86.191	13.828	1.00	69.30
ATOM	509	OE1	GLU	A	97	66.456	86.505	15.033	1.00	68.09
ATOM	510	OE2	GLU	A	97	66.582	87.001	12.895	1.00	70.23
ATOM	511	N	PHE	A	98	62.648	82.005	16.066	1.00	67.34
ATOM	512	CA	PHE	A	98	61.422	81.898	16.839	1.00	67.25
ATOM	513	C	PHE	A	98	61.657	82.331	18.272	1.00	66.90
ATOM	514	O	PHE	A	98	60.790	82.911	18.906	1.00	66.31
ATOM	515	CB	PHE	A	98	60.933	80.464	16.857	1.00	67.37
ATOM	516	CG	PHE	A	98	59.548	80.311	17.401	1.00	67.61
ATOM	517	CD1	PHE	A	98	58.468	80.818	16.715	1.00	68.05
ATOM	518	CD2	PHE	A	98	59.325	79.663	18.597	1.00	67.98
ATOM	519	CE1	PHE	A	98	57.190	80.674	17.211	1.00	68.39
ATOM	520	CE2	PHE	A	98	58.046	79.515	19.092	1.00	67.80
ATOM	521	CZ	PHE	A	98	56.983	80.021	18.399	1.00	67.93
ATOM	522	N	GLY	A	99	62.833	82.003	18.788	1.00	66.78
ATOM	523	CA	GLY	A	99	63.204	82.374	20.139	1.00	66.53
ATOM	524	C	GLY	A	99	62.856	81.297	21.133	1.00	66.11
ATOM	525	O	GLY	A	99	63.455	81.211	22.201	1.00	66.86
ATOM	526	N	HIS	A	100	61.885	80.466	20.787	1.00	65.36
ATOM	527	CA	HIS	A	100	61.447	79.418	21.693	1.00	64.86
ATOM	528	C	HIS	A	100	61.783	78.023	21.161	1.00	64.00
ATOM	529	O	HIS	A	100	61.700	77.745	19.959	1.00	62.72
ATOM	530	CB	HIS	A	100	59.934	79.519	21.936	1.00	65.08
ATOM	531	CG	HIS	A	100	59.490	80.812	22.561	1.00	65.42
ATOM	532	ND1	HIS	A	100	58.685	81.717	21.904	1.00	65.80
ATOM	533	CD2	HIS	A	100	59.702	81.330	23.797	1.00	66.64
ATOM	534	CE1	HIS	A	100	58.441	82.748	22.696	1.00	66.12
ATOM	535	NE2	HIS	A	100	59.045	82.536	23.852	1.00	65.68
ATOM	536	N	SER	A	101	62.175	77.146	22.071	1.00	63.26
ATOM	537	CA	SER	A	101	62.407	75.760	21.703	1.00	62.93
ATOM	538	C	SER	A	101	61.049	75.092	21.406	1.00	62.18
ATOM	539	O	SER	A	101	60.140	75.073	22.242	1.00	61.25
ATOM	540	CB	SER	A	101	63.161	75.034	22.823	1.00	63.06
ATOM	541	OG	SER	A	101	63.767	73.844	22.335	1.00	63.28
ATOM	542	N	ILE	A	102	60.910	74.552	20.204	1.00	61.55
ATOM	543	CA	ILE	A	102	59.650	73.964	19.801	1.00	60.98
ATOM	544	C	ILE	A	102	59.558	72.519	20.239	1.00	59.90
ATOM	545	O	ILE	A	102	60.478	71.751	20.018	1.00	60.20
ATOM	546	CB	ILE	A	102	59.487	74.108	18.302	1.00	61.31

ATOM	547	CG1	ILE	A	102	59.204	75.580	17.988	1.00 61.66
ATOM	548	CG2	ILE	A	102	58.343	73.215	17.805	1.00 61.95
ATOM	549	CD1	ILE	A	102	59.190	75.918	16.529	1.00 61.93
ATOM	550	N	ASN	A	103	58.446	72.154	20.873	1.00 58.45
ATOM	551	CA	ASN	A	103	58.283	70.808	21.419	1.00 57.23
ATOM	552	C	ASN	A	103	57.658	69.826	20.430	1.00 56.00
ATOM	553	O	ASN	A	103	58.051	68.671	20.332	1.00 54.77
ATOM	554	CB	ASN	A	103	57.440	70.863	22.706	1.00 57.35
ATOM	555	CG	ASN	A	103	57.481	69.554	23.496	1.00 57.35
ATOM	556	OD1	ASN	A	103	56.598	68.714	23.352	1.00 55.48
ATOM	557	ND2	ASN	A	103	58.507	69.389	24.348	1.00 56.22
ATOM	558	N	ASP	A	104	56.663	70.277	19.702	1.00 55.10
ATOM	559	CA	ASP	A	104	56.014	69.397	18.765	1.00 54.76
ATOM	560	C	ASP	A	104	55.324	70.283	17.769	1.00 53.89
ATOM	561	O	ASP	A	104	55.329	71.511	17.921	1.00 54.05
ATOM	562	CB	ASP	A	104	55.018	68.470	19.477	1.00 55.23
ATOM	563	CG	ASP	A	104	54.749	67.177	18.699	1.00 56.71
ATOM	564	OD1	ASP	A	104	55.381	66.957	17.647	1.00 55.96
ATOM	565	OD2	ASP	A	104	53.919	66.320	19.064	1.00 60.44
ATOM	566	N	TYR	A	105	54.736	69.656	16.764	1.00 52.66
ATOM	567	CA	TYR	A	105	54.086	70.356	15.687	1.00 52.56
ATOM	568	C	TYR	A	105	52.838	69.609	15.319	1.00 51.25
ATOM	569	O	TYR	A	105	52.726	68.403	15.543	1.00 51.29
ATOM	570	CB	TYR	A	105	54.976	70.362	14.448	1.00 53.10
ATOM	571	CG	TYR	A	105	55.070	69.000	13.774	1.00 55.91
ATOM	572	CD1	TYR	A	105	54.132	68.603	12.829	1.00 59.33
ATOM	573	CD2	TYR	A	105	56.087	68.106	14.096	1.00 58.18
ATOM	574	CE1	TYR	A	105	54.204	67.347	12.215	1.00 60.78
ATOM	575	CE2	TYR	A	105	56.169	66.855	13.483	1.00 59.77
ATOM	576	CZ	TYR	A	105	55.231	66.485	12.542	1.00 60.60
ATOM	577	OH	TYR	A	105	55.300	65.245	11.937	1.00 60.13
ATOM	578	N	SER	A	106	51.899	70.313	14.724	1.00 49.68
ATOM	579	CA	SER	A	106	50.719	69.644	14.246	1.00 49.10
ATOM	580	C	SER	A	106	50.252	70.331	12.986	1.00 48.51
ATOM	581	O	SER	A	106	49.835	71.499	12.976	1.00 47.69
ATOM	582	CB	SER	A	106	49.614	69.625	15.291	1.00 48.76
ATOM	583	OG	SER	A	106	48.498	68.968	14.757	1.00 48.08
ATOM	584	N	ILE	A	107	50.272	69.567	11.920	1.00 47.91
ATOM	585	CA	ILE	A	107	49.959	70.124	10.650	1.00 48.19
ATOM	586	C	ILE	A	107	48.473	70.005	10.454	1.00 48.08
ATOM	587	O	ILE	A	107	47.875	68.975	10.737	1.00 47.65
ATOM	588	CB	ILE	A	107	50.820	69.433	9.595	1.00 48.45
ATOM	589	CG1	ILE	A	107	52.193	69.181	10.252	1.00 48.77
ATOM	590	CG2	ILE	A	107	50.856	70.256	8.325	1.00 48.58
ATOM	591	CD1	ILE	A	107	53.411	69.417	9.444	1.00 50.54
ATOM	592	N	SER	A	108	47.860	71.104	10.053	1.00 48.44
ATOM	593	CA	SER	A	108	46.445	71.086	9.814	1.00 49.14
ATOM	594	C	SER	A	108	46.247	70.064	8.713	1.00 49.85
ATOM	595	O	SER	A	108	47.165	69.818	7.946	1.00 50.02
ATOM	596	CB	SER	A	108	45.958	72.469	9.394	1.00 49.19
ATOM	597	OG	SER	A	108	46.787	73.035	8.386	1.00 50.05
ATOM	598	N	PRO	A	109	45.062	69.465	8.631	1.00 50.74
ATOM	599	CA	PRO	A	109	44.782	68.440	7.617	1.00 50.80
ATOM	600	C	PRO	A	109	44.722	68.956	6.185	1.00 51.14
ATOM	601	O	PRO	A	109	44.922	68.161	5.264	1.00 51.45
ATOM	602	CB	PRO	A	109	43.390	67.936	7.981	1.00 50.92
ATOM	603	CG	PRO	A	109	43.059	68.544	9.324	1.00 51.33
ATOM	604	CD	PRO	A	109	43.907	69.734	9.501	1.00 50.54
ATOM	605	N	ASP	A	110	44.391	70.219	5.965	1.00 50.90
ATOM	606	CA	ASP	A	110	44.352	70.690	4.590	1.00 51.01
ATOM	607	C	ASP	A	110	45.715	71.225	4.196	1.00 51.06
ATOM	608	O	ASP	A	110	45.851	71.807	3.139	1.00 52.40
ATOM	609	CB	ASP	A	110	43.227	71.703	4.328	1.00 50.49
ATOM	610	CG	ASP	A	110	43.344	72.955	5.182	1.00 49.53
ATOM	611	OD1	ASP	A	110	44.363	73.103	5.860	1.00 45.06
ATOM	612	OD2	ASP	A	110	42.466	73.853	5.223	1.00 49.22
ATOM	613	N	GLY	A	111	46.725	71.007	5.031	1.00 51.13
ATOM	614	CA	GLY	A	111	48.084	71.465	4.746	1.00 51.16
ATOM	615	C	GLY	A	111	48.338	72.982	4.684	1.00 51.30
ATOM	616	O	GLY	A	111	49.409	73.417	4.250	1.00 51.86

ATOM	617	N	GLN	A	112	47.386	73.797	5.127	1.00	50.80
ATOM	618	CA	GLN	A	112	47.535	75.249	5.078	1.00	50.53
ATOM	619	C	GLN	A	112	48.236	75.898	6.299	1.00	49.99
ATOM	620	O	GLN	A	112	48.706	77.038	6.238	1.00	49.93
ATOM	621	CB	GLN	A	112	46.149	75.872	4.878	1.00	50.71
ATOM	622	CG	GLN	A	112	45.484	75.478	3.555	1.00	51.08
ATOM	623	CD	GLN	A	112	44.189	76.236	3.297	1.00	52.53
ATOM	624	OE1	GLN	A	112	44.104	77.442	3.556	1.00	53.75
ATOM	625	NE2	GLN	A	112	43.179	75.533	2.798	1.00	51.77
ATOM	626	N	PHE	A	113	48.318	75.191	7.414	1.00	49.50
ATOM	627	CA	PHE	A	113	48.899	75.781	8.613	1.00	48.63
ATOM	628	C	PHE	A	113	49.547	74.749	9.488	1.00	48.52
ATOM	629	O	PHE	A	113	49.183	73.567	9.479	1.00	48.60
ATOM	630	CB	PHE	A	113	47.818	76.424	9.488	1.00	48.00
ATOM	631	CG	PHE	A	113	46.954	77.415	8.782	1.00	47.61
ATOM	632	CD1	PHE	A	113	47.307	78.752	8.741	1.00	47.99
ATOM	633	CD2	PHE	A	113	45.777	77.025	8.185	1.00	46.46
ATOM	634	CE1	PHE	A	113	46.503	79.673	8.092	1.00	47.46
ATOM	635	CE2	PHE	A	113	44.969	77.950	7.540	1.00	47.60
ATOM	636	CZ	PHE	A	113	45.333	79.271	7.491	1.00	47.63
ATOM	637	N	ILE	A	114	50.470	75.220	10.309	1.00	48.29
ATOM	638	CA	ILE	A	114	51.071	74.359	11.288	1.00	48.07
ATOM	639	C	ILE	A	114	50.970	74.974	12.683	1.00	47.45
ATOM	640	O	ILE	A	114	51.136	76.180	12.853	1.00	46.70
ATOM	641	CB	ILE	A	114	52.529	74.065	10.915	1.00	48.57
ATOM	642	CG1	ILE	A	114	53.144	73.118	11.949	1.00	48.34
ATOM	643	CG2	ILE	A	114	53.324	75.366	10.775	1.00	48.17
ATOM	644	CD1	ILE	A	114	54.622	72.906	11.770	1.00	50.52
ATOM	645	N	LEU	A	115	50.670	74.118	13.660	1.00	46.94
ATOM	646	CA	LEU	A	115	50.656	74.482	15.064	1.00	46.46
ATOM	647	C	LEU	A	115	52.013	74.192	15.606	1.00	45.85
ATOM	648	O	LEU	A	115	52.494	73.087	15.461	1.00	45.54
ATOM	649	CB	LEU	A	115	49.717	73.572	15.849	1.00	46.47
ATOM	650	CG	LEU	A	115	48.381	74.042	16.381	1.00	48.15
ATOM	651	CD1	LEU	A	115	47.816	72.910	17.237	1.00	48.28
ATOM	652	CD2	LEU	A	115	48.504	75.302	17.189	1.00	48.34
ATOM	653	N	LEU	A	116	52.608	75.154	16.282	1.00	45.86
ATOM	654	CA	LEU	A	116	53.872	74.950	16.952	1.00	45.94
ATOM	655	C	LEU	A	116	53.597	74.957	18.447	1.00	45.74
ATOM	656	O	LEU	A	116	53.005	75.875	18.958	1.00	45.58
ATOM	657	CB	LEU	A	116	54.849	76.077	16.616	1.00	46.09
ATOM	658	CG	LEU	A	116	55.204	76.301	15.150	1.00	46.93
ATOM	659	CD1	LEU	A	116	56.002	77.596	15.013	1.00	48.50
ATOM	660	CD2	LEU	A	116	55.989	75.160	14.614	1.00	48.06
ATOM	661	N	GLU	A	117	54.048	73.936	19.156	1.00	46.50
ATOM	662	CA	GLU	A	117	53.799	73.818	20.587	1.00	46.10
ATOM	663	C	GLU	A	117	55.084	74.081	21.341	1.00	45.85
ATOM	664	O	GLU	A	117	56.114	73.520	21.027	1.00	46.64
ATOM	665	CB	GLU	A	117	53.295	72.405	20.871	1.00	46.38
ATOM	666	CG	GLU	A	117	53.051	72.060	22.332	1.00	46.56
ATOM	667	CD	GLU	A	117	52.655	70.594	22.516	1.00	46.13
ATOM	668	OE1	GLU	A	117	51.560	70.188	22.081	1.00	44.34
ATOM	669	OE2	GLU	A	117	53.434	69.852	23.130	1.00	48.23
ATOM	670	N	TYR	A	118	55.045	74.930	22.347	1.00	45.50
ATOM	671	CA	TYR	A	118	56.261	75.224	23.081	1.00	44.57
ATOM	672	C	TYR	A	118	55.894	75.555	24.530	1.00	44.74
ATOM	673	O	TYR	A	118	54.712	75.640	24.860	1.00	44.74
ATOM	674	CB	TYR	A	118	57.021	76.347	22.360	1.00	44.78
ATOM	675	CG	TYR	A	118	56.363	77.714	22.363	1.00	43.33
ATOM	676	CD1	TYR	A	118	55.410	78.056	21.429	1.00	43.21
ATOM	677	CD2	TYR	A	118	56.732	78.666	23.276	1.00	42.55
ATOM	678	CE1	TYR	A	118	54.826	79.311	21.428	1.00	42.60
ATOM	679	CE2	TYR	A	118	56.149	79.908	23.289	1.00	42.33
ATOM	680	CZ	TYR	A	118	55.200	80.222	22.362	1.00	42.64
ATOM	681	OH	TYR	A	118	54.635	81.462	22.379	1.00	43.87
ATOM	682	N	ASN	A	119	56.883	75.719	25.399	1.00	44.34
ATOM	683	CA	ASN	A	119	56.610	75.968	26.805	1.00	44.35
ATOM	684	C	ASN	A	119	55.799	74.775	27.389	1.00	43.75
ATOM	685	O	ASN	A	119	54.819	74.960	28.116	1.00	42.59
ATOM	686	CB	ASN	A	119	55.826	77.282	27.002	1.00	44.61

ATOM	687	CG	ASN	A	119	56.673	78.550	26.780	1.00 46.44
ATOM	688	OD1	ASN	A	119	57.911	78.515	26.675	1.00 48.82
ATOM	689	ND2	ASN	A	119	55.992	79.688	26.725	1.00 46.66
ATOM	690	N	TYR	A	120	56.207	73.564	27.031	1.00 42.78
ATOM	691	CA	TYR	A	120	55.536	72.357	27.460	1.00 42.17
ATOM	692	C	TYR	A	120	55.849	72.045	28.917	1.00 41.40
ATOM	693	O	TYR	A	120	57.000	71.900	29.320	1.00 40.43
ATOM	694	CB	TYR	A	120	55.932	71.195	26.543	1.00 43.02
ATOM	695	CG	TYR	A	120	55.770	69.805	27.131	1.00 43.77
ATOM	696	CD1	TYR	A	120	56.670	69.324	28.058	1.00 45.93
ATOM	697	CD2	TYR	A	120	54.715	68.982	26.757	1.00 44.47
ATOM	698	CE1	TYR	A	120	56.542	68.063	28.592	1.00 46.89
ATOM	699	CE2	TYR	A	120	54.573	67.712	27.295	1.00 44.14
ATOM	700	CZ	TYR	A	120	55.489	67.265	28.204	1.00 45.39
ATOM	701	OH	TYR	A	120	55.379	66.029	28.766	1.00 45.22
ATOM	702	N	VAL	A	121	54.806	71.982	29.725	1.00 40.53
ATOM	703	CA	VAL	A	121	54.974	71.605	31.121	1.00 39.35
ATOM	704	C	VAL	A	121	54.123	70.370	31.318	1.00 37.68
ATOM	705	O	VAL	A	121	52.908	70.408	31.166	1.00 37.65
ATOM	706	CB	VAL	A	121	54.554	72.713	32.051	1.00 39.90
ATOM	707	CG1	VAL	A	121	54.784	72.295	33.502	1.00 40.45
ATOM	708	CG2	VAL	A	121	55.362	73.994	31.720	1.00 41.03
ATOM	709	N	LYS	A	122	54.778	69.270	31.616	1.00 35.67
ATOM	710	CA	LYS	A	122	54.099	68.033	31.821	1.00 35.20
ATOM	711	C	LYS	A	122	53.217	68.015	33.063	1.00 34.14
ATOM	712	O	LYS	A	122	53.673	68.378	34.146	1.00 33.72
ATOM	713	CB	LYS	A	122	55.092	66.876	31.952	1.00 35.21
ATOM	714	CG	LYS	A	122	54.369	65.582	32.319	1.00 36.44
ATOM	715	CD	LYS	A	122	55.212	64.328	32.387	1.00 38.33
ATOM	716	CE	LYS	A	122	54.469	63.297	33.288	1.00 40.56
ATOM	717	NZ	LYS	A	122	54.953	61.959	33.075	1.00 41.12
ATOM	718	N	GLN	A	123	51.986	67.512	32.913	1.00 32.33
ATOM	719	CA	GLN	A	123	51.137	67.272	34.086	1.00 31.49
ATOM	720	C	GLN	A	123	51.141	65.798	34.419	1.00 29.73
ATOM	721	O	GLN	A	123	52.073	65.318	34.997	1.00 29.32
ATOM	722	CB	GLN	A	123	49.705	67.800	33.922	1.00 31.37
ATOM	723	CG	GLN	A	123	49.014	67.763	35.303	1.00 32.48
ATOM	724	CD	GLN	A	123	47.565	68.168	35.344	1.00 35.18
ATOM	725	OE1	GLN	A	123	47.118	68.685	36.364	1.00 41.34
ATOM	726	NE2	GLN	A	123	46.810	67.879	34.295	1.00 33.83
ATOM	727	N	TRP	A	124	50.113	65.046	34.049	1.00 29.19
ATOM	728	CA	TRP	A	124	50.126	63.619	34.389	1.00 28.77
ATOM	729	C	TRP	A	124	50.649	62.794	33.216	1.00 28.48
ATOM	730	O	TRP	A	124	51.496	63.257	32.505	1.00 29.03
ATOM	731	CB	TRP	A	124	48.748	63.166	34.862	1.00 28.15
ATOM	732	CG	TRP	A	124	48.171	64.047	35.916	1.00 28.17
ATOM	733	CD1	TRP	A	124	46.971	64.654	35.882	1.00 28.36
ATOM	734	CD2	TRP	A	124	48.767	64.407	37.168	1.00 28.10
ATOM	735	NE1	TRP	A	124	46.763	65.373	37.026	1.00 26.42
ATOM	736	CE2	TRP	A	124	47.846	65.242	37.841	1.00 27.48
ATOM	737	CE3	TRP	A	124	49.988	64.099	37.798	1.00 24.94
ATOM	738	CZ2	TRP	A	124	48.102	65.801	39.107	1.00 24.59
ATOM	739	CZ3	TRP	A	124	50.248	64.652	39.056	1.00 26.05
ATOM	740	CH2	TRP	A	124	49.286	65.477	39.709	1.00 24.28
ATOM	741	N	ARG	A	125	50.164	61.579	33.003	1.00 29.19
ATOM	742	CA	ARG	A	125	50.657	60.764	31.907	1.00 29.06
ATOM	743	C	ARG	A	125	50.379	61.345	30.519	1.00 29.40
ATOM	744	O	ARG	A	125	51.212	61.246	29.642	1.00 28.73
ATOM	745	CB	ARG	A	125	50.103	59.330	31.998	1.00 29.53
ATOM	746	CG	ARG	A	125	50.796	58.308	31.001	1.00 29.97
ATOM	747	CD	ARG	A	125	50.153	56.928	30.934	1.00 27.63
ATOM	748	NE	ARG	A	125	50.045	56.297	32.248	1.00 28.44
ATOM	749	CZ	ARG	A	125	50.984	55.535	32.814	1.00 30.55
ATOM	750	NH1	ARG	A	125	52.124	55.282	32.191	1.00 29.95
ATOM	751	NH2	ARG	A	125	50.780	55.005	34.015	1.00 29.23
ATOM	752	N	HIS	A	126	49.219	61.961	30.300	1.00 29.58
ATOM	753	CA	HIS	A	126	48.922	62.516	28.977	1.00 29.53
ATOM	754	C	HIS	A	126	48.746	64.039	28.988	1.00 29.76
ATOM	755	O	HIS	A	126	49.039	64.700	27.993	1.00 30.56
ATOM	756	CB	HIS	A	126	47.651	61.858	28.416	1.00 29.39

ATOM	757	CG	HIS	A	126	47.682	60.359	28.467	1.00	29.10
ATOM	758	ND1	HIS	A	126	48.429	59.602	27.596	1.00	24.61
ATOM	759	CD2	HIS	A	126	47.125	59.481	29.343	1.00	31.06
ATOM	760	CE1	HIS	A	126	48.262	58.321	27.869	1.00	27.22
ATOM	761	NE2	HIS	A	126	47.489	58.216	28.941	1.00	27.52
ATOM	762	N	SER	A	127	48.262	64.586	30.106	1.00	28.69
ATOM	763	CA	SER	A	127	48.038	66.009	30.240	1.00	27.65
ATOM	764	C	SER	A	127	49.338	66.828	30.359	1.00	28.78
ATOM	765	O	SER	A	127	50.381	66.369	30.886	1.00	27.69
ATOM	766	CB	SER	A	127	47.190	66.282	31.491	1.00	28.00
ATOM	767	OG	SER	A	127	47.631	65.524	32.617	1.00	23.91
ATOM	768	N	TYR	A	128	49.244	68.059	29.890	1.00	29.78
ATOM	769	CA	TYR	A	128	50.328	69.009	29.997	1.00	31.21
ATOM	770	C	TYR	A	128	49.776	70.328	29.587	1.00	31.31
ATOM	771	O	TYR	A	128	48.699	70.388	29.051	1.00	30.93
ATOM	772	CB	TYR	A	128	51.476	68.615	29.063	1.00	31.91
ATOM	773	CG	TYR	A	128	51.108	68.469	27.608	1.00	32.71
ATOM	774	CD1	TYR	A	128	51.009	69.582	26.785	1.00	36.05
ATOM	775	CD2	TYR	A	128	50.892	67.209	27.036	1.00	35.28
ATOM	776	CE1	TYR	A	128	50.722	69.452	25.436	1.00	34.89
ATOM	777	CE2	TYR	A	128	50.570	67.073	25.686	1.00	33.91
ATOM	778	CZ	TYR	A	128	50.507	68.190	24.897	1.00	34.61
ATOM	779	OH	TYR	A	128	50.201	68.081	23.563	1.00	35.38
ATOM	780	N	THR	A	129	50.471	71.401	29.901	1.00	32.61
ATOM	781	CA	THR	A	129	50.099	72.681	29.340	1.00	33.63
ATOM	782	C	THR	A	129	51.201	73.142	28.423	1.00	33.39
ATOM	783	O	THR	A	129	52.343	72.669	28.518	1.00	32.91
ATOM	784	CB	THR	A	129	49.893	73.739	30.395	1.00	34.35
ATOM	785	OG1	THR	A	129	50.974	73.693	31.337	1.00	35.37
ATOM	786	CG2	THR	A	129	48.609	73.488	31.192	1.00	35.67
ATOM	787	N	ALA	A	130	50.846	74.106	27.580	1.00	33.49
ATOM	788	CA	ALA	A	130	51.762	74.679	26.616	1.00	34.05
ATOM	789	C	ALA	A	130	51.226	75.987	25.993	1.00	34.58
ATOM	790	O	ALA	A	130	50.034	76.359	26.172	1.00	34.01
ATOM	791	CB	ALA	A	130	52.032	73.668	25.512	1.00	33.60
ATOM	792	N	SER	A	131	52.139	76.655	25.266	1.00	34.97
ATOM	793	CA	SER	A	131	51.879	77.851	24.480	1.00	35.00
ATOM	794	C	SER	A	131	51.829	77.419	23.032	1.00	37.17
ATOM	795	O	SER	A	131	52.506	76.481	22.657	1.00	36.47
ATOM	796	CB	SER	A	131	53.034	78.835	24.570	1.00	36.15
ATOM	797	OG	SER	A	131	53.004	79.607	25.730	1.00	35.91
ATOM	798	N	TYR	A	132	51.084	78.135	22.205	1.00	38.73
ATOM	799	CA	TYR	A	132	50.949	77.736	20.820	1.00	41.07
ATOM	800	C	TYR	A	132	51.063	78.887	19.845	1.00	42.38
ATOM	801	O	TYR	A	132	50.642	80.002	20.108	1.00	42.56
ATOM	802	CB	TYR	A	132	49.605	77.030	20.581	1.00	41.24
ATOM	803	CG	TYR	A	132	49.564	75.660	21.185	1.00	41.94
ATOM	804	CD1	TYR	A	132	50.010	74.563	20.487	1.00	42.96
ATOM	805	CD2	TYR	A	132	49.131	75.478	22.486	1.00	42.55
ATOM	806	CE1	TYR	A	132	50.006	73.296	21.071	1.00	44.60
ATOM	807	CE2	TYR	A	132	49.128	74.240	23.073	1.00	44.31
ATOM	808	CZ	TYR	A	132	49.558	73.148	22.362	1.00	43.70
ATOM	809	OH	TYR	A	132	49.550	71.915	22.958	1.00	44.24
ATOM	810	N	ASP	A	133	51.625	78.584	18.699	1.00	44.24
ATOM	811	CA	ASP	A	133	51.641	79.536	17.614	1.00	46.11
ATOM	812	C	ASP	A	133	51.122	78.822	16.398	1.00	46.98
ATOM	813	O	ASP	A	133	51.206	77.598	16.306	1.00	47.50
ATOM	814	CB	ASP	A	133	53.055	80.053	17.361	1.00	46.19
ATOM	815	CG	ASP	A	133	53.341	81.301	18.110	1.00	46.73
ATOM	816	OD1	ASP	A	133	52.395	81.915	18.640	1.00	47.58
ATOM	817	OD2	ASP	A	133	54.490	81.754	18.227	1.00	51.67
ATOM	818	N	ILE	A	134	50.547	79.573	15.484	1.00	48.21
ATOM	819	CA	ILE	A	134	50.161	78.994	14.243	1.00	49.72
ATOM	820	C	ILE	A	134	50.946	79.703	13.159	1.00	51.48
ATOM	821	O	ILE	A	134	50.922	80.919	13.063	1.00	51.56
ATOM	822	CB	ILE	A	134	48.702	79.124	13.999	1.00	49.74
ATOM	823	CG1	ILE	A	134	47.917	78.658	15.216	1.00	50.32
ATOM	824	CG2	ILE	A	134	48.344	78.287	12.797	1.00	49.73
ATOM	825	CD1	ILE	A	134	46.477	79.187	15.260	1.00	50.42
ATOM	826	N	TYR	A	135	51.650	78.918	12.356	1.00	53.32

ATOM	827	CA	TYR	A	135	52.464	79.424	11.279	1.00 54.70
ATOM	828	C	TYR	A	135	51.735	79.116	9.964	1.00 55.69
ATOM	829	O	TYR	A	135	51.351	77.968	9.702	1.00 55.37
ATOM	830	CB	TYR	A	135	53.840	78.770	11.391	1.00 55.05
ATOM	831	CG	TYR	A	135	54.844	79.160	10.345	1.00 56.75
ATOM	832	CD1	TYR	A	135	55.449	80.398	10.357	1.00 58.08
ATOM	833	CD2	TYR	A	135	55.203	78.273	9.362	1.00 58.33
ATOM	834	CE1	TYR	A	135	56.381	80.745	9.396	1.00 59.70
ATOM	835	CE2	TYR	A	135	56.123	78.606	8.404	1.00 60.29
ATOM	836	CZ	TYR	A	135	56.714	79.841	8.424	1.00 60.03
ATOM	837	OH	TYR	A	135	57.632	80.157	7.450	1.00 61.36
ATOM	838	N	ASP	A	136	51.508	80.166	9.170	1.00 57.00
ATOM	839	CA	ASP	A	136	50.751	80.082	7.911	1.00 58.19
ATOM	840	C	ASP	A	136	51.661	79.653	6.795	1.00 59.15
ATOM	841	O	ASP	A	136	52.551	80.379	6.416	1.00 58.91
ATOM	842	CB	ASP	A	136	50.148	81.448	7.586	1.00 58.42
ATOM	843	CG	ASP	A	136	49.311	81.463	6.304	1.00 58.07
ATOM	844	OD1	ASP	A	136	49.647	80.776	5.305	1.00 56.04
ATOM	845	OD2	ASP	A	136	48.292	82.190	6.228	1.00 58.58
ATOM	846	N	LEU	A	137	51.386	78.489	6.233	1.00 61.13
ATOM	847	CA	LEU	A	137	52.306	77.855	5.295	1.00 62.59
ATOM	848	C	LEU	A	137	52.425	78.444	3.901	1.00 63.90
ATOM	849	O	LEU	A	137	53.532	78.530	3.382	1.00 63.88
ATOM	850	CB	LEU	A	137	51.990	76.368	5.198	1.00 62.65
ATOM	851	CG	LEU	A	137	52.645	75.596	6.341	1.00 63.06
ATOM	852	CD1	LEU	A	137	51.922	74.310	6.631	1.00 63.27
ATOM	853	CD2	LEU	A	137	54.088	75.327	5.981	1.00 63.98
ATOM	854	N	ASN	A	138	51.315	78.829	3.284	1.00 65.63
ATOM	855	CA	ASN	A	138	51.375	79.327	1.907	1.00 66.97
ATOM	856	C	ASN	A	138	52.144	80.633	1.857	1.00 67.75
ATOM	857	O	ASN	A	138	52.926	80.893	0.935	1.00 68.07
ATOM	858	CB	ASN	A	138	49.975	79.431	1.304	1.00 67.06
ATOM	859	CG	ASN	A	138	49.442	78.077	0.889	1.00 67.65
ATOM	860	OD1	ASN	A	138	50.227	77.151	0.629	1.00 68.25
ATOM	861	ND2	ASN	A	138	48.108	77.938	0.842	1.00 67.87
ATOM	862	N	LYS	A	139	51.910	81.448	2.873	1.00 68.62
ATOM	863	CA	LYS	A	139	52.738	82.607	3.119	1.00 69.62
ATOM	864	C	LYS	A	139	53.816	81.972	3.992	1.00 69.94
ATOM	865	O	LYS	A	139	53.899	80.750	4.037	1.00 70.33
ATOM	866	CB	LYS	A	139	51.935	83.672	3.855	1.00 69.82
ATOM	867	CG	LYS	A	139	50.611	83.997	3.158	1.00 70.97
ATOM	868	CD	LYS	A	139	49.587	84.614	4.104	1.00 73.07
ATOM	869	CE	LYS	A	139	48.174	84.576	3.502	1.00 74.34
ATOM	870	NZ	LYS	A	139	47.102	84.617	4.550	1.00 75.16
ATOM	871	N	ARG	A	140	54.655	82.754	4.660	1.00 70.16
ATOM	872	CA	ARG	A	140	55.630	82.191	5.602	1.00 70.26
ATOM	873	C	ARG	A	140	55.494	82.987	6.880	1.00 69.45
ATOM	874	O	ARG	A	140	56.477	83.343	7.526	1.00 69.67
ATOM	875	CB	ARG	A	140	57.044	82.353	5.077	1.00 70.82
ATOM	876	CG	ARG	A	140	57.257	81.894	3.659	1.00 73.45
ATOM	877	CD	ARG	A	140	58.665	82.214	3.142	1.00 76.89
ATOM	878	NE	ARG	A	140	58.778	82.051	1.694	1.00 79.70
ATOM	879	CZ	ARG	A	140	58.291	82.904	0.792	1.00 82.20
ATOM	880	NH1	ARG	A	140	57.656	84.008	1.168	1.00 82.19
ATOM	881	NH2	ARG	A	140	58.458	82.654	-0.500	1.00 83.24
ATOM	882	N	GLN	A	141	54.250	83.240	7.249	1.00 68.50
ATOM	883	CA	GLN	A	141	53.934	84.207	8.282	1.00 67.79
ATOM	884	C	GLN	A	141	53.402	83.537	9.525	1.00 66.29
ATOM	885	O	GLN	A	141	52.499	82.716	9.457	1.00 65.72
ATOM	886	CB	GLN	A	141	52.851	85.142	7.718	1.00 68.09
ATOM	887	CG	GLN	A	141	52.822	86.583	8.222	1.00 69.60
ATOM	888	CD	GLN	A	141	51.681	87.394	7.570	1.00 71.88
ATOM	889	OE1	GLN	A	141	50.694	87.749	8.226	1.00 72.03
ATOM	890	NE2	GLN	A	141	51.811	87.654	6.273	1.00 72.19
ATOM	891	N	LEU	A	142	53.984	83.871	10.659	1.00 65.02
ATOM	892	CA	LEU	A	142	53.403	83.477	11.916	1.00 64.42
ATOM	893	C	LEU	A	142	52.126	84.298	12.008	1.00 63.42
ATOM	894	O	LEU	A	142	52.021	85.355	11.388	1.00 63.00
ATOM	895	CB	LEU	A	142	54.330	83.840	13.067	1.00 64.58
ATOM	896	CG	LEU	A	142	55.543	82.928	13.195	1.00 65.68

ATOM	897	CD1	LEU	A	142	56.665	83.608	13.991	1.00 66.52
ATOM	898	CD2	LEU	A	142	55.130	81.600	13.821	1.00 65.75
ATOM	899	N	ILE	A	143	51.143	83.830	12.757	1.00 62.15
ATOM	900	CA	ILE	A	143	49.930	84.618	12.900	1.00 61.48
ATOM	901	C	ILE	A	143	50.038	85.417	14.190	1.00 60.32
ATOM	902	O	ILE	A	143	50.387	84.867	15.221	1.00 60.32
ATOM	903	CB	ILE	A	143	48.690	83.724	12.870	1.00 61.54
ATOM	904	CG1	ILE	A	143	48.543	83.144	11.468	1.00 61.17
ATOM	905	CG2	ILE	A	143	47.454	84.528	13.238	1.00 61.79
ATOM	906	CD1	ILE	A	143	47.407	82.228	11.299	1.00 61.35
ATOM	907	N	THR	A	144	49.773	86.716	14.115	1.00 58.81
ATOM	908	CA	THR	A	144	49.916	87.586	15.263	1.00 58.06
ATOM	909	C	THR	A	144	48.555	87.935	15.856	1.00 57.10
ATOM	910	O	THR	A	144	48.469	88.455	16.963	1.00 57.12
ATOM	911	CB	THR	A	144	50.670	88.874	14.869	1.00 58.11
ATOM	912	OG1	THR	A	144	51.839	88.550	14.118	1.00 58.85
ATOM	913	CG2	THR	A	144	51.246	89.585	16.105	1.00 59.32
ATOM	914	N	GLU	A	145	47.501	87.614	15.126	1.00 55.99
ATOM	915	CA	GLU	A	145	46.136	87.937	15.513	1.00 55.66
ATOM	916	C	GLU	A	145	45.459	86.793	16.258	1.00 54.33
ATOM	917	O	GLU	A	145	45.570	85.638	15.850	1.00 53.39
ATOM	918	CB	GLU	A	145	45.332	88.143	14.237	1.00 56.14
ATOM	919	CG	GLU	A	145	44.515	89.407	14.110	1.00 58.11
ATOM	920	CD	GLU	A	145	44.375	89.792	12.642	1.00 60.69
ATOM	921	OE1	GLU	A	145	45.384	90.216	12.048	1.00 62.49
ATOM	922	OE2	GLU	A	145	43.283	89.628	12.059	1.00 62.39
ATOM	923	N	GLU	A	146	44.733	87.134	17.321	1.00 53.21
ATOM	924	CA	GLU	A	146	43.890	86.192	18.050	1.00 52.46
ATOM	925	C	GLU	A	146	44.601	84.893	18.376	1.00 51.84
ATOM	926	O	GLU	A	146	44.125	83.806	18.042	1.00 51.80
ATOM	927	CB	GLU	A	146	42.654	85.904	17.206	1.00 52.69
ATOM	928	CG	GLU	A	146	41.898	87.159	16.814	1.00 52.58
ATOM	929	CD	GLU	A	146	41.272	87.854	18.007	1.00 52.40
ATOM	930	OE1	GLU	A	146	41.243	87.256	19.090	1.00 51.55
ATOM	931	OE2	GLU	A	146	40.809	88.995	17.868	1.00 53.65
ATOM	932	N	ARG	A	147	45.749	85.011	19.021	1.00 50.64
ATOM	933	CA	ARG	A	147	46.569	83.861	19.314	1.00 50.07
ATOM	934	C	ARG	A	147	45.949	82.956	20.325	1.00 48.87
ATOM	935	O	ARG	A	147	45.159	83.385	21.170	1.00 48.31
ATOM	936	CB	ARG	A	147	47.891	84.314	19.880	1.00 50.41
ATOM	937	CG	ARG	A	147	48.732	85.057	18.901	1.00 53.00
ATOM	938	CD	ARG	A	147	50.090	85.381	19.439	1.00 55.81
ATOM	939	NE	ARG	A	147	50.998	85.691	18.348	1.00 60.02
ATOM	940	CZ	ARG	A	147	52.324	85.592	18.415	1.00 64.02
ATOM	941	NH1	ARG	A	147	52.914	85.181	19.536	1.00 63.93
ATOM	942	NH2	ARG	A	147	53.065	85.902	17.350	1.00 66.19
ATOM	943	N	ILE	A	148	46.333	81.691	20.238	1.00 47.51
ATOM	944	CA	ILE	A	148	45.945	80.711	21.217	1.00 46.54
ATOM	945	C	ILE	A	148	46.600	81.226	22.488	1.00 45.49
ATOM	946	O	ILE	A	148	47.712	81.697	22.446	1.00 45.33
ATOM	947	CB	ILE	A	148	46.454	79.320	20.816	1.00 46.49
ATOM	948	CG1	ILE	A	148	45.726	78.846	19.554	1.00 46.40
ATOM	949	CG2	ILE	A	148	46.192	78.311	21.917	1.00 46.14
ATOM	950	CD1	ILE	A	148	46.344	77.600	18.955	1.00 47.77
ATOM	951	N	PRO	A	149	45.906	81.209	23.605	1.00 44.35
ATOM	952	CA	PRO	A	149	46.501	81.726	24.840	1.00 43.90
ATOM	953	C	PRO	A	149	47.525	80.798	25.484	1.00 42.87
ATOM	954	O	PRO	A	149	47.553	79.610	25.221	1.00 41.74
ATOM	955	CB	PRO	A	149	45.324	81.848	25.799	1.00 43.71
ATOM	956	CG	PRO	A	149	44.149	81.190	25.135	1.00 45.01
ATOM	957	CD	PRO	A	149	44.537	80.710	23.783	1.00 44.57
ATOM	958	N	ASN	A	150	48.336	81.387	26.353	1.00 42.54
ATOM	959	CA	ASN	A	150	49.270	80.668	27.189	1.00 42.35
ATOM	960	C	ASN	A	150	48.520	79.769	28.137	1.00 40.60
ATOM	961	O	ASN	A	150	47.369	80.033	28.475	1.00 40.98
ATOM	962	CB	ASN	A	150	50.128	81.645	28.009	1.00 43.01
ATOM	963	CG	ASN	A	150	51.107	82.422	27.153	1.00 45.14
ATOM	964	OD1	ASN	A	150	51.764	81.853	26.283	1.00 44.71
ATOM	965	ND2	ASN	A	150	51.185	83.745	27.385	1.00 50.11
ATOM	966	N	ASN	A	151	49.197	78.715	28.579	1.00 39.29

ATOM	967	CA	ASN	A	151	48.637	77.743	29.508	1.00 38.12
ATOM	968	C	ASN	A	151	47.429	77.004	28.903	1.00 36.63
ATOM	969	O	ASN	A	151	46.544	76.538	29.621	1.00 34.40
ATOM	970	CB	ASN	A	151	48.284	78.393	30.858	1.00 38.43
ATOM	971	CG	ASN	A	151	49.484	79.088	31.515	1.00 40.94
ATOM	972	OD1	ASN	A	151	50.396	78.429	32.016	1.00 47.50
ATOM	973	ND2	ASN	A	151	49.486	80.411	31.508	1.00 39.57
ATOM	974	N	THR	A	152	47.408	76.889	27.575	1.00 35.12
ATOM	975	CA	THR	A	152	46.381	76.084	26.917	1.00 34.29
ATOM	976	C	THR	A	152	46.579	74.644	27.290	1.00 33.28
ATOM	977	O	THR	A	152	47.716	74.159	27.346	1.00 32.47
ATOM	978	CB	THR	A	152	46.433	76.236	25.428	1.00 34.54
ATOM	979	OG1	THR	A	152	45.978	77.550	25.079	1.00 34.46
ATOM	980	CG2	THR	A	152	45.440	75.341	24.767	1.00 34.93
ATOM	981	N	GLN	A	153	45.461	73.960	27.524	1.00 32.18
ATOM	982	CA	GLN	A	153	45.485	72.602	28.045	1.00 32.33
ATOM	983	C	GLN	A	153	45.333	71.526	26.970	1.00 32.48
ATOM	984	O	GLN	A	153	45.804	70.420	27.145	1.00 33.22
ATOM	985	CB	GLN	A	153	44.401	72.448	29.144	1.00 31.84
ATOM	986	CG	GLN	A	153	44.600	73.376	30.357	1.00 29.66
ATOM	987	CD	GLN	A	153	43.301	73.649	31.122	1.00 30.78
ATOM	988	OE1	GLN	A	153	42.395	74.320	30.598	1.00 29.78
ATOM	989	NE2	GLN	A	153	43.192	73.112	32.339	1.00 28.52
ATOM	990	N	TRP	A	154	44.658	71.838	25.883	1.00 32.73
ATOM	991	CA	TRP	A	154	44.553	70.907	24.769	1.00 33.07
ATOM	992	C	TRP	A	154	44.181	71.690	23.557	1.00 33.13
ATOM	993	O	TRP	A	154	43.471	72.646	23.672	1.00 32.32
ATOM	994	CB	TRP	A	154	43.483	69.853	24.982	1.00 32.74
ATOM	995	CG	TRP	A	154	43.399	68.894	23.838	1.00 34.28
ATOM	996	CD1	TRP	A	154	42.403	68.807	22.899	1.00 36.41
ATOM	997	CD2	TRP	A	154	44.351	67.895	23.497	1.00 34.65
ATOM	998	NE1	TRP	A	154	42.675	67.806	22.008	1.00 35.24
ATOM	999	CE2	TRP	A	154	43.867	67.222	22.353	1.00 35.83
ATOM	1000	CE3	TRP	A	154	45.555	67.479	24.056	1.00 34.17
ATOM	1001	CZ2	TRP	A	154	44.570	66.160	21.735	1.00 36.92
ATOM	1002	CZ3	TRP	A	154	46.248	66.415	23.452	1.00 37.72
ATOM	1003	CH2	TRP	A	154	45.752	65.774	22.298	1.00 36.01
ATOM	1004	N	VAL	A	155	44.682	71.264	22.403	1.00 34.39
ATOM	1005	CA	VAL	A	155	44.330	71.845	21.127	1.00 35.30
ATOM	1006	C	VAL	A	155	44.176	70.731	20.105	1.00 35.02
ATOM	1007	O	VAL	A	155	44.928	69.760	20.138	1.00 34.58
ATOM	1008	CB	VAL	A	155	45.443	72.731	20.562	1.00 35.77
ATOM	1009	CG1	VAL	A	155	44.890	73.635	19.468	1.00 36.34
ATOM	1010	CG2	VAL	A	155	46.090	73.548	21.654	1.00 38.86
ATOM	1011	N	THR	A	156	43.222	70.873	19.193	1.00 34.41
ATOM	1012	CA	THR	A	156	43.109	69.926	18.125	1.00 35.30
ATOM	1013	C	THR	A	156	42.509	70.539	16.853	1.00 35.68
ATOM	1014	O	THR	A	156	41.553	71.308	16.919	1.00 34.62
ATOM	1015	CB	THR	A	156	42.328	68.675	18.567	1.00 35.21
ATOM	1016	OG1	THR	A	156	42.256	67.767	17.476	1.00 37.50
ATOM	1017	CG2	THR	A	156	40.870	68.954	18.826	1.00 35.59
ATOM	1018	N	TRP	A	157	43.124	70.231	15.704	1.00 35.68
ATOM	1019	CA	TRP	A	157	42.562	70.616	14.411	1.00 36.30
ATOM	1020	C	TRP	A	157	41.330	69.778	14.186	1.00 36.28
ATOM	1021	O	TRP	A	157	41.235	68.679	14.687	1.00 35.81
ATOM	1022	CB	TRP	A	157	43.507	70.240	13.263	1.00 36.56
ATOM	1023	CG	TRP	A	157	44.754	71.013	13.176	1.00 35.29
ATOM	1024	CD1	TRP	A	157	46.003	70.555	13.352	1.00 35.35
ATOM	1025	CD2	TRP	A	157	44.863	72.388	12.847	1.00 33.33
ATOM	1026	NE1	TRP	A	157	46.910	71.572	13.161	1.00 36.83
ATOM	1027	CE2	TRP	A	157	46.224	72.703	12.817	1.00 33.51
ATOM	1028	CE3	TRP	A	157	43.940	73.385	12.530	1.00 32.60
ATOM	1029	CZ2	TRP	A	157	46.678	73.976	12.563	1.00 32.88
ATOM	1030	CZ3	TRP	A	157	44.391	74.628	12.233	1.00 30.65
ATOM	1031	CH2	TRP	A	157	45.741	74.927	12.265	1.00 30.48
ATOM	1032	N	SER	A	158	40.407	70.290	13.404	1.00 37.62
ATOM	1033	CA	SER	A	158	39.260	69.503	12.980	1.00 38.44
ATOM	1034	C	SER	A	158	39.858	68.436	12.063	1.00 39.22
ATOM	1035	O	SER	A	158	41.005	68.554	11.675	1.00 38.90
ATOM	1036	CB	SER	A	158	38.261	70.381	12.251	1.00 37.53

ATOM	1037	OG	SER	A	158	38.943	71.285	11.441	1.00	36.37
ATOM	1038	N	PRO	A	159	39.127	67.384	11.736	1.00	40.86
ATOM	1039	CA	PRO	A	159	39.745	66.256	11.014	1.00	42.66
ATOM	1040	C	PRO	A	159	40.010	66.532	9.552	1.00	44.36
ATOM	1041	O	PRO	A	159	40.795	65.810	8.942	1.00	45.26
ATOM	1042	CB	PRO	A	159	38.708	65.138	11.103	1.00	42.08
ATOM	1043	CG	PRO	A	159	37.607	65.652	11.896	1.00	42.11
ATOM	1044	CD	PRO	A	159	37.709	67.164	11.985	1.00	40.54
ATOM	1045	N	VAL	A	160	39.383	67.558	9.004	1.00	46.04
ATOM	1046	CA	VAL	A	160	39.487	67.800	7.592	1.00	47.33
ATOM	1047	C	VAL	A	160	39.335	69.255	7.251	1.00	47.02
ATOM	1048	O	VAL	A	160	38.227	69.687	6.981	1.00	48.15
ATOM	1049	CB	VAL	A	160	38.351	67.046	6.891	1.00	48.20
ATOM	1050	CG1	VAL	A	160	37.857	67.793	5.706	1.00	48.33
ATOM	1051	CG2	VAL	A	160	38.803	65.639	6.489	1.00	49.68
ATOM	1052	N	GLY	A	161	40.428	70.010	7.237	1.00	45.77
ATOM	1053	CA	GLY	A	161	40.341	71.439	6.972	1.00	44.86
ATOM	1054	C	GLY	A	161	41.305	72.178	7.886	1.00	43.51
ATOM	1055	O	GLY	A	161	42.466	71.822	7.964	1.00	42.53
ATOM	1056	N	HIS	A	162	40.850	73.220	8.566	1.00	42.39
ATOM	1057	CA	HIS	A	162	41.748	73.892	9.512	1.00	41.52
ATOM	1058	C	HIS	A	162	41.047	74.636	10.666	1.00	40.24
ATOM	1059	O	HIS	A	162	41.517	75.654	11.123	1.00	38.94
ATOM	1060	CB	HIS	A	162	42.699	74.805	8.752	1.00	41.07
ATOM	1061	CG	HIS	A	162	42.007	75.869	7.976	1.00	42.04
ATOM	1062	ND1	HIS	A	162	42.150	76.002	6.611	1.00	43.01
ATOM	1063	CD2	HIS	A	162	41.174	76.861	8.371	1.00	42.61
ATOM	1064	CE1	HIS	A	162	41.416	77.022	6.199	1.00	44.93
ATOM	1065	NE2	HIS	A	162	40.813	77.559	7.248	1.00	43.01
ATOM	1066	N	LYS	A	163	39.900	74.139	11.101	1.00	40.02
ATOM	1067	CA	LYS	A	163	39.255	74.668	12.297	1.00	39.80
ATOM	1068	C	LYS	A	163	40.092	74.243	13.507	1.00	39.23
ATOM	1069	O	LYS	A	163	40.831	73.277	13.436	1.00	39.27
ATOM	1070	CB	LYS	A	163	37.825	74.133	12.427	1.00	40.08
ATOM	1071	CG	LYS	A	163	36.841	74.602	11.337	1.00	41.67
ATOM	1072	CD	LYS	A	163	35.389	74.250	11.717	1.00	43.49
ATOM	1073	CE	LYS	A	163	34.377	74.600	10.604	1.00	45.24
ATOM	1074	NZ	LYS	A	163	33.021	74.073	10.922	1.00	44.53
ATOM	1075	N	LEU	A	164	40.002	74.984	14.612	1.00	38.88
ATOM	1076	CA	LEU	A	164	40.754	74.659	15.817	1.00	38.35
ATOM	1077	C	LEU	A	164	39.831	74.614	17.021	1.00	37.44
ATOM	1078	O	LEU	A	164	38.947	75.453	17.144	1.00	37.74
ATOM	1079	CB	LEU	A	164	41.819	75.723	16.098	1.00	38.44
ATOM	1080	CG	LEU	A	164	43.153	75.629	15.373	1.00	39.70
ATOM	1081	CD1	LEU	A	164	43.971	76.881	15.604	1.00	40.58
ATOM	1082	CD2	LEU	A	164	43.939	74.433	15.817	1.00	39.25
ATOM	1083	N	ALA	A	165	40.040	73.641	17.909	1.00	36.10
ATOM	1084	CA	ALA	A	165	39.347	73.630	19.184	1.00	35.22
ATOM	1085	C	ALA	A	165	40.381	73.531	20.277	1.00	34.55
ATOM	1086	O	ALA	A	165	41.298	72.755	20.204	1.00	33.31
ATOM	1087	CB	ALA	A	165	38.310	72.508	19.289	1.00	34.85
ATOM	1088	N	TYR	A	166	40.234	74.337	21.311	1.00	34.62
ATOM	1089	CA	TYR	A	166	41.186	74.283	22.397	1.00	33.94
ATOM	1090	C	TYR	A	166	40.522	74.510	23.727	1.00	33.50
ATOM	1091	O	TYR	A	166	39.417	75.045	23.809	1.00	31.59
ATOM	1092	CB	TYR	A	166	42.299	75.291	22.179	1.00	34.14
ATOM	1093	CG	TYR	A	166	41.868	76.728	22.206	1.00	36.02
ATOM	1094	CD1	TYR	A	166	41.811	77.419	23.410	1.00	38.52
ATOM	1095	CD2	TYR	A	166	41.585	77.417	21.045	1.00	38.10
ATOM	1096	CE1	TYR	A	166	41.470	78.729	23.473	1.00	38.65
ATOM	1097	CE2	TYR	A	166	41.245	78.775	21.097	1.00	39.86
ATOM	1098	CZ	TYR	A	166	41.184	79.413	22.335	1.00	38.33
ATOM	1099	OH	TYR	A	166	40.824	80.725	22.463	1.00	35.71
ATOM	1100	N	VAL	A	167	41.248	74.105	24.767	1.00	33.32
ATOM	1101	CA	VAL	A	167	40.771	74.134	26.123	1.00	33.62
ATOM	1102	C	VAL	A	167	41.739	74.941	26.943	1.00	34.02
ATOM	1103	O	VAL	A	167	42.924	74.627	26.996	1.00	33.50
ATOM	1104	CB	VAL	A	167	40.723	72.732	26.689	1.00	33.48
ATOM	1105	CG1	VAL	A	167	40.393	72.763	28.202	1.00	33.98
ATOM	1106	CG2	VAL	A	167	39.737	71.916	25.934	1.00	34.69

ATOM	1107	N	TRP	A	168	41.212	75.977	27.580	1.00	34.37
ATOM	1108	CA	TRP	A	168	41.988	76.887	28.405	1.00	35.04
ATOM	1109	C	TRP	A	168	41.126	77.196	29.624	1.00	34.81
ATOM	1110	O	TRP	A	168	39.932	77.500	29.487	1.00	34.71
ATOM	1111	CB	TRP	A	168	42.292	78.150	27.603	1.00	35.59
ATOM	1112	CG	TRP	A	168	43.055	79.241	28.346	1.00	37.17
ATOM	1113	CD1	TRP	A	168	44.354	79.214	28.720	1.00	37.65
ATOM	1114	CD2	TRP	A	168	42.547	80.506	28.752	1.00	38.52
ATOM	1115	NE1	TRP	A	168	44.695	80.380	29.353	1.00	39.17
ATOM	1116	CE2	TRP	A	168	43.596	81.195	29.387	1.00	41.72
ATOM	1117	CE3	TRP	A	168	41.310	81.130	28.647	1.00	41.50
ATOM	1118	CZ2	TRP	A	168	43.444	82.489	29.912	1.00	43.72
ATOM	1119	CZ3	TRP	A	168	41.152	82.414	29.179	1.00	44.45
ATOM	1120	CH2	TRP	A	168	42.213	83.073	29.796	1.00	43.32
ATOM	1121	N	ASN	A	169	41.711	77.079	30.811	1.00	34.34
ATOM	1122	CA	ASN	A	169	40.989	77.316	32.045	1.00	34.21
ATOM	1123	C	ASN	A	169	39.729	76.453	32.119	1.00	33.09
ATOM	1124	O	ASN	A	169	38.691	76.851	32.618	1.00	30.84
ATOM	1125	CB	ASN	A	169	40.688	78.805	32.210	1.00	34.41
ATOM	1126	CG	ASN	A	169	41.888	79.576	32.756	1.00	38.60
ATOM	1127	OD1	ASN	A	169	41.801	80.778	33.014	1.00	44.54
ATOM	1128	ND2	ASN	A	169	43.012	78.882	32.954	1.00	39.87
ATOM	1129	N	ASN	A	170	39.862	75.244	31.596	1.00	32.83
ATOM	1130	CA	ASN	A	170	38.842	74.219	31.682	1.00	32.10
ATOM	1131	C	ASN	A	170	37.615	74.477	30.844	1.00	31.06
ATOM	1132	O	ASN	A	170	36.624	73.782	31.001	1.00	30.55
ATOM	1133	CB	ASN	A	170	38.462	73.971	33.153	1.00	32.85
ATOM	1134	CG	ASN	A	170	39.577	73.286	33.945	1.00	33.35
ATOM	1135	OD1	ASN	A	170	40.751	73.469	33.679	1.00	34.79
ATOM	1136	ND2	ASN	A	170	39.192	72.515	34.937	1.00	32.85
ATOM	1137	N	ASP	A	171	37.664	75.460	29.948	1.00	31.17
ATOM	1138	CA	ASP	A	171	36.562	75.684	29.005	1.00	31.06
ATOM	1139	C	ASP	A	171	37.013	75.482	27.535	1.00	30.59
ATOM	1140	O	ASP	A	171	38.167	75.659	27.190	1.00	30.25
ATOM	1141	CB	ASP	A	171	35.993	77.097	29.148	1.00	31.19
ATOM	1142	CG	ASP	A	171	35.138	77.270	30.383	1.00	31.15
ATOM	1143	OD1	ASP	A	171	34.224	76.431	30.664	1.00	29.15
ATOM	1144	OD2	ASP	A	171	35.321	78.238	31.125	1.00	30.82
ATOM	1145	N	ILE	A	172	36.067	75.147	26.673	1.00	30.17
ATOM	1146	CA	ILE	A	172	36.339	74.932	25.264	1.00	30.16
ATOM	1147	C	ILE	A	172	36.173	76.191	24.444	1.00	30.54
ATOM	1148	O	ILE	A	172	35.215	76.910	24.627	1.00	30.37
ATOM	1149	CB	ILE	A	172	35.385	73.882	24.724	1.00	29.51
ATOM	1150	CG1	ILE	A	172	35.615	72.570	25.450	1.00	27.93
ATOM	1151	CG2	ILE	A	172	35.583	73.729	23.235	1.00	30.53
ATOM	1152	CD1	ILE	A	172	34.434	71.624	25.459	1.00	29.06
ATOM	1153	N	TYR	A	173	37.127	76.456	23.563	1.00	31.38
ATOM	1154	CA	TYR	A	173	37.010	77.526	22.590	1.00	33.28
ATOM	1155	C	TYR	A	173	37.193	76.928	21.181	1.00	34.60
ATOM	1156	O	TYR	A	173	37.876	75.901	21.016	1.00	33.51
ATOM	1157	CB	TYR	A	173	38.037	78.633	22.833	1.00	33.55
ATOM	1158	CG	TYR	A	173	37.867	79.289	24.189	1.00	33.93
ATOM	1159	CD1	TYR	A	173	38.130	78.577	25.344	1.00	35.75
ATOM	1160	CD2	TYR	A	173	37.415	80.602	24.311	1.00	32.65
ATOM	1161	CE1	TYR	A	173	37.972	79.160	26.609	1.00	37.59
ATOM	1162	CE2	TYR	A	173	37.236	81.198	25.571	1.00	34.72
ATOM	1163	CZ	TYR	A	173	37.524	80.474	26.711	1.00	36.29
ATOM	1164	OH	TYR	A	173	37.352	81.009	27.965	1.00	36.67
ATOM	1165	N	VAL	A	174	36.570	77.572	20.190	1.00	35.32
ATOM	1166	CA	VAL	A	174	36.677	77.154	18.813	1.00	36.57
ATOM	1167	C	VAL	A	174	37.133	78.311	17.940	1.00	37.79
ATOM	1168	O	VAL	A	174	36.676	79.424	18.108	1.00	38.26
ATOM	1169	CB	VAL	A	174	35.329	76.696	18.249	1.00	36.38
ATOM	1170	CG1	VAL	A	174	35.462	76.409	16.776	1.00	37.71
ATOM	1171	CG2	VAL	A	174	34.851	75.474	18.945	1.00	36.20
ATOM	1172	N	LYS	A	175	37.998	78.016	16.979	1.00	39.34
ATOM	1173	CA	LYS	A	175	38.463	78.984	15.998	1.00	40.41
ATOM	1174	C	LYS	A	175	38.191	78.463	14.599	1.00	40.91
ATOM	1175	O	LYS	A	175	38.711	77.420	14.191	1.00	40.44
ATOM	1176	CB	LYS	A	175	39.958	79.225	16.131	1.00	41.02

ATOM	1177	CG	LYS	A	175	40.310	80.403	17.018	1.00	42.53
ATOM	1178	CD	LYS	A	175	41.728	80.325	17.482	1.00	43.95
ATOM	1179	CE	LYS	A	175	42.378	81.679	17.502	1.00	45.63
ATOM	1180	NZ	LYS	A	175	42.799	82.132	16.146	1.00	44.89
ATOM	1181	N	ILE	A	176	37.372	79.209	13.870	1.00	41.50
ATOM	1182	CA	ILE	A	176	37.026	78.879	12.506	1.00	41.87
ATOM	1183	C	ILE	A	176	38.245	79.118	11.636	1.00	42.08
ATOM	1184	O	ILE	A	176	38.622	78.269	10.867	1.00	41.73
ATOM	1185	CB	ILE	A	176	35.829	79.699	12.080	1.00	42.04
ATOM	1186	CG1	ILE	A	176	34.653	79.349	12.992	1.00	43.27
ATOM	1187	CG2	ILE	A	176	35.447	79.428	10.616	1.00	41.99
ATOM	1188	CD1	ILE	A	176	34.176	77.911	12.856	1.00	44.03
ATOM	1189	N	GLU	A	177	38.903	80.248	11.779	1.00	43.02
ATOM	1190	CA	GLU	A	177	40.162	80.444	11.058	1.00	44.07
ATOM	1191	C	GLU	A	177	41.207	80.777	12.077	1.00	44.83
ATOM	1192	O	GLU	A	177	40.907	81.329	13.126	1.00	44.24
ATOM	1193	CB	GLU	A	177	40.093	81.584	10.034	1.00	44.25
ATOM	1194	CG	GLU	A	177	38.809	81.638	9.220	1.00	45.05
ATOM	1195	CD	GLU	A	177	38.777	80.622	8.097	1.00	46.72
ATOM	1196	OE1	GLU	A	177	39.841	80.068	7.766	1.00	45.39
ATOM	1197	OE2	GLU	A	177	37.682	80.403	7.527	1.00	50.48
ATOM	1198	N	PRO	A	178	42.439	80.415	11.779	1.00	46.19
ATOM	1199	CA	PRO	A	178	43.546	80.666	12.688	1.00	46.98
ATOM	1200	C	PRO	A	178	43.634	82.100	13.117	1.00	47.64
ATOM	1201	O	PRO	A	178	43.873	82.382	14.290	1.00	46.95
ATOM	1202	CB	PRO	A	178	44.761	80.306	11.853	1.00	47.61
ATOM	1203	CG	PRO	A	178	44.262	79.292	10.878	1.00	47.37
ATOM	1204	CD	PRO	A	178	42.851	79.669	10.584	1.00	46.06
ATOM	1205	N	ASN	A	179	43.427	83.017	12.192	1.00	48.67
ATOM	1206	CA	ASN	A	179	43.621	84.414	12.547	1.00	49.57
ATOM	1207	C	ASN	A	179	42.397	85.113	13.136	1.00	49.92
ATOM	1208	O	ASN	A	179	42.503	86.263	13.570	1.00	50.50
ATOM	1209	CB	ASN	A	179	44.189	85.212	11.373	1.00	49.85
ATOM	1210	CG	ASN	A	179	43.192	85.421	10.273	1.00	49.77
ATOM	1211	OD1	ASN	A	179	42.186	84.732	10.192	1.00	52.40
ATOM	1212	ND2	ASN	A	179	43.486	86.357	9.396	1.00	48.53
ATOM	1213	N	LEU	A	180	41.267	84.418	13.215	1.00	49.23
ATOM	1214	CA	LEU	A	180	40.068	85.051	13.723	1.00	49.12
ATOM	1215	C	LEU	A	180	39.768	84.741	15.198	1.00	48.35
ATOM	1216	O	LEU	A	180	40.331	83.815	15.793	1.00	47.93
ATOM	1217	CB	LEU	A	180	38.862	84.710	12.835	1.00	49.65
ATOM	1218	CG	LEU	A	180	38.666	85.582	11.567	1.00	52.26
ATOM	1219	CD1	LEU	A	180	39.327	86.967	11.695	1.00	53.45
ATOM	1220	CD2	LEU	A	180	39.209	84.918	10.317	1.00	53.15
ATOM	1221	N	PRO	A	181	38.915	85.573	15.786	1.00	46.86
ATOM	1222	CA	PRO	A	181	38.511	85.431	17.179	1.00	46.36
ATOM	1223	C	PRO	A	181	37.861	84.100	17.474	1.00	45.21
ATOM	1224	O	PRO	A	181	37.065	83.622	16.702	1.00	46.04
ATOM	1225	CB	PRO	A	181	37.489	86.571	17.369	1.00	46.24
ATOM	1226	CG	PRO	A	181	37.866	87.586	16.359	1.00	46.31
ATOM	1227	CD	PRO	A	181	38.346	86.785	15.176	1.00	47.26
ATOM	1228	N	SER	A	182	38.194	83.526	18.612	1.00	43.72
ATOM	1229	CA	SER	A	182	37.631	82.264	19.011	1.00	43.04
ATOM	1230	C	SER	A	182	36.232	82.468	19.605	1.00	42.27
ATOM	1231	O	SER	A	182	35.922	83.501	20.169	1.00	41.67
ATOM	1232	CB	SER	A	182	38.561	81.612	20.025	1.00	42.97
ATOM	1233	OG	SER	A	182	38.449	82.245	21.280	1.00	42.30
ATOM	1234	N	TYR	A	183	35.369	81.490	19.424	1.00	41.67
ATOM	1235	CA	TYR	A	183	34.052	81.535	20.009	1.00	41.15
ATOM	1236	C	TYR	A	183	34.135	80.676	21.271	1.00	39.87
ATOM	1237	O	TYR	A	183	34.633	79.553	21.207	1.00	39.01
ATOM	1238	CB	TYR	A	183	33.021	80.935	19.061	1.00	41.56
ATOM	1239	CG	TYR	A	183	32.862	81.629	17.726	1.00	44.63
ATOM	1240	CD1	TYR	A	183	33.729	81.369	16.672	1.00	46.43
ATOM	1241	CD2	TYR	A	183	31.825	82.533	17.509	1.00	46.16
ATOM	1242	CE1	TYR	A	183	33.571	81.989	15.454	1.00	48.20
ATOM	1243	CE2	TYR	A	183	31.674	83.177	16.290	1.00	46.24
ATOM	1244	CZ	TYR	A	183	32.544	82.906	15.271	1.00	48.83
ATOM	1245	OH	TYR	A	183	32.391	83.530	14.042	1.00	51.62
ATOM	1246	N	ARG	A	184	33.620	81.195	22.391	1.00	38.83

ATOM	1247	CA	ARG	A	184	33.636	80.505	23.676	1.00	37.75
ATOM	1248	C	ARG	A	184	32.479	79.526	23.737	1.00	36.66
ATOM	1249	O	ARG	A	184	31.350	79.911	23.575	1.00	36.62
ATOM	1250	CB	ARG	A	184	33.544	81.535	24.816	1.00	38.30
ATOM	1251	CG	ARG	A	184	33.626	80.933	26.220	1.00	39.20
ATOM	1252	CD	ARG	A	184	34.091	81.882	27.312	1.00	38.92
ATOM	1253	NE	ARG	A	184	34.047	81.241	28.625	1.00	39.00
ATOM	1254	CZ	ARG	A	184	34.541	81.773	29.759	1.00	40.63
ATOM	1255	NH1	ARG	A	184	35.125	82.966	29.768	1.00	40.89
ATOM	1256	NH2	ARG	A	184	34.460	81.096	30.891	1.00	38.62
ATOM	1257	N	ILE	A	185	32.745	78.250	23.968	1.00	35.61
ATOM	1258	CA	ILE	A	185	31.674	77.269	23.984	1.00	35.15
ATOM	1259	C	ILE	A	185	31.088	77.004	25.377	1.00	35.45
ATOM	1260	O	ILE	A	185	29.907	76.689	25.530	1.00	35.36
ATOM	1261	CB	ILE	A	185	32.182	75.952	23.416	1.00	34.42
ATOM	1262	CG1	ILE	A	185	32.793	76.150	22.038	1.00	35.36
ATOM	1263	CG2	ILE	A	185	31.064	74.939	23.372	1.00	33.33
ATOM	1264	CD1	ILE	A	185	31.872	76.837	20.993	1.00	33.99
ATOM	1265	N	THR	A	186	31.923	77.091	26.393	1.00	36.11
ATOM	1266	CA	THR	A	186	31.481	76.745	27.742	1.00	36.38
ATOM	1267	C	THR	A	186	31.870	77.830	28.715	1.00	36.91
ATOM	1268	O	THR	A	186	32.751	78.631	28.448	1.00	36.47
ATOM	1269	CB	THR	A	186	32.021	75.344	28.211	1.00	36.38
ATOM	1270	OG1	THR	A	186	33.453	75.330	28.284	1.00	33.71
ATOM	1271	CG2	THR	A	186	31.666	74.261	27.218	1.00	37.13
ATOM	1272	N	TRP	A	187	31.192	77.852	29.843	1.00	37.99
ATOM	1273	CA	TRP	A	187	31.405	78.906	30.820	1.00	39.81
ATOM	1274	C	TRP	A	187	31.515	78.390	32.228	1.00	39.36
ATOM	1275	O	TRP	A	187	31.762	79.160	33.139	1.00	40.25
ATOM	1276	CB	TRP	A	187	30.245	79.910	30.766	1.00	40.15
ATOM	1277	CG	TRP	A	187	30.143	80.591	29.426	1.00	43.68
ATOM	1278	CD1	TRP	A	187	29.603	80.068	28.266	1.00	44.15
ATOM	1279	CD2	TRP	A	187	30.637	81.892	29.082	1.00	45.22
ATOM	1280	NE1	TRP	A	187	29.711	80.986	27.249	1.00	44.94
ATOM	1281	CE2	TRP	A	187	30.339	82.110	27.720	1.00	43.72
ATOM	1282	CE3	TRP	A	187	31.283	82.908	29.795	1.00	47.78
ATOM	1283	CZ2	TRP	A	187	30.657	83.294	27.062	1.00	45.92
ATOM	1284	CZ3	TRP	A	187	31.607	84.092	29.132	1.00	48.57
ATOM	1285	CH2	TRP	A	187	31.287	84.270	27.772	1.00	47.33
ATOM	1286	N	THR	A	188	31.373	77.090	32.390	1.00	38.68
ATOM	1287	CA	THR	A	188	31.350	76.462	33.684	1.00	38.37
ATOM	1288	C	THR	A	188	32.706	75.969	34.141	1.00	38.26
ATOM	1289	O	THR	A	188	32.833	75.440	35.246	1.00	38.27
ATOM	1290	CB	THR	A	188	30.458	75.251	33.568	1.00	38.31
ATOM	1291	OG1	THR	A	188	30.904	74.443	32.463	1.00	37.24
ATOM	1292	CG2	THR	A	188	29.049	75.667	33.224	1.00	37.94
ATOM	1293	N	GLY	A	189	33.710	76.093	33.283	1.00	37.93
ATOM	1294	CA	GLY	A	189	35.023	75.565	33.606	1.00	38.12
ATOM	1295	C	GLY	A	189	35.476	76.074	34.957	1.00	38.04
ATOM	1296	O	GLY	A	189	35.295	77.246	35.247	1.00	38.63
ATOM	1297	N	LYS	A	190	36.074	75.209	35.769	1.00	37.97
ATOM	1298	CA	LYS	A	190	36.541	75.583	37.117	1.00	38.44
ATOM	1299	C	LYS	A	190	37.629	74.604	37.567	1.00	37.55
ATOM	1300	O	LYS	A	190	37.393	73.398	37.717	1.00	36.54
ATOM	1301	CB	LYS	A	190	35.346	75.597	38.124	1.00	38.40
ATOM	1302	CG	LYS	A	190	35.670	76.047	39.594	1.00	41.68
ATOM	1303	CD	LYS	A	190	34.366	76.151	40.490	1.00	44.07
ATOM	1304	CE	LYS	A	190	34.678	76.437	41.984	1.00	45.90
ATOM	1305	NZ	LYS	A	190	33.447	76.400	42.888	1.00	44.46
ATOM	1306	N	GLU	A	191	38.822	75.135	37.792	1.00	37.97
ATOM	1307	CA	GLU	A	191	39.978	74.324	38.182	1.00	37.95
ATOM	1308	C	GLU	A	191	39.641	73.268	39.232	1.00	36.73
ATOM	1309	O	GLU	A	191	38.993	73.560	40.232	1.00	35.27
ATOM	1310	CB	GLU	A	191	41.127	75.210	38.673	1.00	39.08
ATOM	1311	CG	GLU	A	191	42.497	74.512	38.619	1.00	42.11
ATOM	1312	CD	GLU	A	191	43.628	75.383	39.148	1.00	45.78
ATOM	1313	OE1	GLU	A	191	43.375	76.562	39.474	1.00	49.77
ATOM	1314	OE2	GLU	A	191	44.760	74.886	39.259	1.00	47.21
ATOM	1315	N	ASP	A	192	40.082	72.036	38.977	1.00	35.55
ATOM	1316	CA	ASP	A	192	39.835	70.903	39.875	1.00	35.43

ATOM	1317	C	ASP	A	192	38.394	70.518	40.097	1.00	34.50
ATOM	1318	O	ASP	A	192	38.127	69.640	40.892	1.00	33.73
ATOM	1319	CB	ASP	A	192	40.419	71.185	41.264	1.00	36.28
ATOM	1320	CG	ASP	A	192	41.923	71.224	41.257	1.00	37.00
ATOM	1321	OD1	ASP	A	192	42.539	70.535	40.429	1.00	38.57
ATOM	1322	OD2	ASP	A	192	42.571	71.911	42.061	1.00	41.87
ATOM	1323	N	ILE	A	193	37.448	71.130	39.395	1.00	33.93
ATOM	1324	CA	ILE	A	193	36.062	70.880	39.718	1.00	32.73
ATOM	1325	C	ILE	A	193	35.184	70.612	38.491	1.00	31.43
ATOM	1326	O	ILE	A	193	34.494	69.605	38.441	1.00	30.34
ATOM	1327	CB	ILE	A	193	35.573	72.043	40.593	1.00	33.45
ATOM	1328	CG1	ILE	A	193	36.150	71.878	42.019	1.00	36.91
ATOM	1329	CG2	ILE	A	193	34.056	72.077	40.686	1.00	34.61
ATOM	1330	CD1	ILE	A	193	36.455	73.166	42.759	1.00	40.22
ATOM	1331	N	ILE	A	194	35.200	71.523	37.527	1.00	30.62
ATOM	1332	CA	ILE	A	194	34.448	71.376	36.312	1.00	30.28
ATOM	1333	C	ILE	A	194	35.435	71.323	35.166	1.00	29.31
ATOM	1334	O	ILE	A	194	36.236	72.244	34.974	1.00	28.40
ATOM	1335	CB	ILE	A	194	33.446	72.525	36.102	1.00	30.93
ATOM	1336	CG1	ILE	A	194	32.462	72.643	37.267	1.00	31.11
ATOM	1337	CG2	ILE	A	194	32.662	72.281	34.828	1.00	32.14
ATOM	1338	CD1	ILE	A	194	31.795	71.369	37.640	1.00	32.16
ATOM	1339	N	TYR	A	195	35.408	70.210	34.443	1.00	28.47
ATOM	1340	CA	TYR	A	195	36.295	70.025	33.314	1.00	28.34
ATOM	1341	C	TYR	A	195	35.475	69.894	32.017	1.00	27.52
ATOM	1342	O	TYR	A	195	34.711	68.952	31.840	1.00	27.00
ATOM	1343	CB	TYR	A	195	37.147	68.746	33.481	1.00	28.77
ATOM	1344	CG	TYR	A	195	37.973	68.569	34.730	1.00	28.86
ATOM	1345	CD1	TYR	A	195	37.375	68.485	35.982	1.00	31.13
ATOM	1346	CD2	TYR	A	195	39.368	68.408	34.650	1.00	29.50
ATOM	1347	CE1	TYR	A	195	38.138	68.291	37.125	1.00	30.70
ATOM	1348	CE2	TYR	A	195	40.136	68.210	35.773	1.00	28.60
ATOM	1349	CZ	TYR	A	195	39.515	68.141	37.014	1.00	31.43
ATOM	1350	OH	TYR	A	195	40.250	67.942	38.161	1.00	30.49
ATOM	1351	N	ASN	A	196	35.638	70.841	31.124	1.00	26.73
ATOM	1352	CA	ASN	A	196	34.971	70.787	29.832	1.00	27.22
ATOM	1353	C	ASN	A	196	35.995	70.465	28.744	1.00	26.56
ATOM	1354	O	ASN	A	196	36.911	71.241	28.528	1.00	26.95
ATOM	1355	CB	ASN	A	196	34.270	72.110	29.517	1.00	26.46
ATOM	1356	CG	ASN	A	196	33.210	72.479	30.560	1.00	27.41
ATOM	1357	OD1	ASN	A	196	32.132	71.847	30.661	1.00	26.50
ATOM	1358	ND2	ASN	A	196	33.503	73.528	31.334	1.00	26.57
ATOM	1359	N	GLY	A	197	35.866	69.292	28.134	1.00	25.76
ATOM	1360	CA	GLY	A	197	36.693	68.911	27.014	1.00	26.04
ATOM	1361	C	GLY	A	197	38.060	68.332	27.353	1.00	25.60
ATOM	1362	O	GLY	A	197	38.854	68.199	26.466	1.00	26.73
ATOM	1363	N	ILE	A	198	38.303	68.025	28.617	1.00	25.23
ATOM	1364	CA	ILE	A	198	39.517	67.405	29.102	1.00	25.68
ATOM	1365	C	ILE	A	198	39.075	66.541	30.259	1.00	25.94
ATOM	1366	O	ILE	A	198	38.012	66.777	30.826	1.00	26.05
ATOM	1367	CB	ILE	A	198	40.579	68.431	29.589	1.00	25.47
ATOM	1368	CG1	ILE	A	198	39.939	69.442	30.542	1.00	26.41
ATOM	1369	CG2	ILE	A	198	41.225	69.120	28.403	1.00	26.50
ATOM	1370	CD1	ILE	A	198	40.929	70.437	31.147	1.00	27.59
ATOM	1371	N	THR	A	199	39.877	65.535	30.588	1.00	25.78
ATOM	1372	CA	THR	A	199	39.521	64.555	31.581	1.00	27.13
ATOM	1373	C	THR	A	199	40.044	64.987	32.949	1.00	27.58
ATOM	1374	O	THR	A	199	40.994	65.765	33.006	1.00	27.38
ATOM	1375	CB	THR	A	199	40.183	63.217	31.240	1.00	27.56
ATOM	1376	OG1	THR	A	199	41.546	63.434	30.778	1.00	28.44
ATOM	1377	CG2	THR	A	199	39.459	62.527	30.071	1.00	29.85
ATOM	1378	N	ASP	A	200	39.407	64.484	34.018	1.00	27.06
ATOM	1379	CA	ASP	A	200	39.938	64.629	35.380	1.00	27.25
ATOM	1380	C	ASP	A	200	41.008	63.560	35.484	1.00	26.77
ATOM	1381	O	ASP	A	200	41.346	62.942	34.447	1.00	26.51
ATOM	1382	CB	ASP	A	200	38.850	64.530	36.456	1.00	27.28
ATOM	1383	CG	ASP	A	200	38.352	63.124	36.651	1.00	28.95
ATOM	1384	OD1	ASP	A	200	38.616	62.275	35.776	1.00	25.86
ATOM	1385	OD2	ASP	A	200	37.708	62.761	37.671	1.00	30.54
ATOM	1386	N	TRP	A	201	41.602	63.378	36.672	1.00	25.97

ATOM	1387	CA	TRP	A	201	42.704	62.420	36.831	1.00 24.90
ATOM	1388	C	TRP	A	201	42.321	60.967	36.477	1.00 23.95
ATOM	1389	O	TRP	A	201	43.038	60.323	35.690	1.00 22.08
ATOM	1390	CB	TRP	A	201	43.338	62.481	38.241	1.00 25.55
ATOM	1391	CG	TRP	A	201	44.643	61.680	38.351	1.00 23.04
ATOM	1392	CD1	TRP	A	201	45.897	62.179	38.282	1.00 22.01
ATOM	1393	CD2	TRP	A	201	44.789	60.258	38.521	1.00 19.68
ATOM	1394	NE1	TRP	A	201	46.815	61.169	38.406	1.00 22.38
ATOM	1395	CE2	TRP	A	201	46.156	59.978	38.550	1.00 21.58
ATOM	1396	CE3	TRP	A	201	43.903	59.201	38.644	1.00 18.42
ATOM	1397	CZ2	TRP	A	201	46.652	58.694	38.682	1.00 21.85
ATOM	1398	CZ3	TRP	A	201	44.394	57.931	38.773	1.00 20.23
ATOM	1399	CH2	TRP	A	201	45.764	57.684	38.804	1.00 21.03
ATOM	1400	N	VAL	A	202	41.199	60.470	37.007	1.00 22.84
ATOM	1401	CA	VAL	A	202	40.846	59.096	36.752	1.00 23.88
ATOM	1402	C	VAL	A	202	40.493	58.884	35.292	1.00 22.91
ATOM	1403	O	VAL	A	202	40.935	57.922	34.740	1.00 21.58
ATOM	1404	CB	VAL	A	202	39.592	58.483	37.380	1.00 24.76
ATOM	1405	CG1	VAL	A	202	39.939	57.345	38.239	1.00 24.92
ATOM	1406	CG2	VAL	A	202	38.597	59.452	37.914	1.00 27.11
ATOM	1407	N	TYR	A	203	39.660	59.750	34.724	1.00 23.45
ATOM	1408	CA	TYR	A	203	39.307	59.635	33.314	1.00 23.95
ATOM	1409	C	TYR	A	203	40.576	59.737	32.420	1.00 24.22
ATOM	1410	O	TYR	A	203	40.685	59.075	31.390	1.00 24.25
ATOM	1411	CB	TYR	A	203	38.224	60.637	32.910	1.00 23.86
ATOM	1412	CG	TYR	A	203	36.791	60.101	33.028	1.00 23.56
ATOM	1413	CD1	TYR	A	203	36.053	60.218	34.209	1.00 23.85
ATOM	1414	CD2	TYR	A	203	36.170	59.507	31.949	1.00 24.49
ATOM	1415	CE1	TYR	A	203	34.766	59.732	34.277	1.00 23.23
ATOM	1416	CE2	TYR	A	203	34.920	58.983	32.035	1.00 23.15
ATOM	1417	CZ	TYR	A	203	34.204	59.133	33.173	1.00 23.57
ATOM	1418	OH	TYR	A	203	32.935	58.637	33.204	1.00 25.76
ATOM	1419	N	GLU	A	204	41.539	60.563	32.811	1.00 23.96
ATOM	1420	CA	GLU	A	204	42.739	60.661	31.999	1.00 24.49
ATOM	1421	C	GLU	A	204	43.529	59.364	32.029	1.00 24.38
ATOM	1422	O	GLU	A	204	43.912	58.812	30.990	1.00 25.04
ATOM	1423	CB	GLU	A	204	43.678	61.760	32.468	1.00 24.31
ATOM	1424	CG	GLU	A	204	45.068	61.577	31.867	1.00 25.99
ATOM	1425	CD	GLU	A	204	46.009	62.723	32.142	1.00 23.57
ATOM	1426	OE1	GLU	A	204	45.541	63.726	32.686	1.00 28.19
ATOM	1427	OE2	GLU	A	204	47.216	62.611	31.846	1.00 22.68
ATOM	1428	N	GLU	A	205	43.745	58.868	33.230	1.00 23.35
ATOM	1429	CA	GLU	A	205	44.647	57.750	33.433	1.00 23.85
ATOM	1430	C	GLU	A	205	44.075	56.390	33.112	1.00 24.27
ATOM	1431	O	GLU	A	205	44.758	55.558	32.545	1.00 24.01
ATOM	1432	CB	GLU	A	205	45.109	57.783	34.873	1.00 22.48
ATOM	1433	CG	GLU	A	205	46.128	56.779	35.260	1.00 24.17
ATOM	1434	CD	GLU	A	205	47.329	56.653	34.337	1.00 24.44
ATOM	1435	OE1	GLU	A	205	47.716	57.564	33.565	1.00 24.45
ATOM	1436	OE2	GLU	A	205	47.903	55.581	34.421	1.00 24.40
ATOM	1437	N	GLU	A	206	42.826	56.182	33.504	1.00 25.05
ATOM	1438	CA	GLU	A	206	42.214	54.889	33.502	1.00 25.30
ATOM	1439	C	GLU	A	206	41.080	54.703	32.512	1.00 26.38
ATOM	1440	O	GLU	A	206	40.927	53.599	32.018	1.00 26.34
ATOM	1441	CB	GLU	A	206	41.673	54.606	34.908	1.00 25.85
ATOM	1442	CG	GLU	A	206	42.711	54.739	36.005	1.00 25.12
ATOM	1443	CD	GLU	A	206	43.655	53.554	36.079	1.00 26.60
ATOM	1444	OE1	GLU	A	206	43.635	52.718	35.154	1.00 24.07
ATOM	1445	OE2	GLU	A	206	44.383	53.434	37.097	1.00 23.28
ATOM	1446	N	VAL	A	207	40.295	55.742	32.212	1.00 26.89
ATOM	1447	CA	VAL	A	207	39.156	55.525	31.332	1.00 26.90
ATOM	1448	C	VAL	A	207	39.452	55.829	29.884	1.00 27.08
ATOM	1449	O	VAL	A	207	39.335	54.939	29.084	1.00 27.79
ATOM	1450	CB	VAL	A	207	37.865	56.185	31.789	1.00 27.63
ATOM	1451	CG1	VAL	A	207	36.726	55.634	30.999	1.00 24.75
ATOM	1452	CG2	VAL	A	207	37.584	55.880	33.255	1.00 26.16
ATOM	1453	N	PHE	A	208	39.868	57.041	29.552	1.00 26.16
ATOM	1454	CA	PHE	A	208	40.180	57.379	28.168	1.00 25.94
ATOM	1455	C	PHE	A	208	41.655	57.189	27.784	1.00 25.74
ATOM	1456	O	PHE	A	208	41.964	57.138	26.599	1.00 25.57

ATOM	1457	CB	PHE	A	208	39.887	58.846	27.841	1.00	25.16
ATOM	1458	CG	PHE	A	208	38.453	59.246	27.884	1.00	25.82
ATOM	1459	CD1	PHE	A	208	37.441	58.346	28.011	1.00	28.40
ATOM	1460	CD2	PHE	A	208	38.126	60.587	27.774	1.00	28.74
ATOM	1461	CE1	PHE	A	208	36.138	58.765	28.026	1.00	27.18
ATOM	1462	CE2	PHE	A	208	36.841	61.009	27.809	1.00	27.47
ATOM	1463	CZ	PHE	A	208	35.842	60.088	27.918	1.00	28.83
ATOM	1464	N	SER	A	209	42.562	57.097	28.755	1.00	25.92
ATOM	1465	CA	SER	A	209	44.025	57.083	28.461	1.00	26.32
ATOM	1466	C	SER	A	209	44.408	58.267	27.598	1.00	25.78
ATOM	1467	O	SER	A	209	45.199	58.162	26.634	1.00	25.56
ATOM	1468	CB	SER	A	209	44.491	55.779	27.788	1.00	26.23
ATOM	1469	OG	SER	A	209	44.260	54.669	28.654	1.00	28.15
ATOM	1470	N	ALA	A	210	43.873	59.415	27.964	1.00	25.14
ATOM	1471	CA	ALA	A	210	44.112	60.612	27.206	1.00	25.32
ATOM	1472	C	ALA	A	210	43.541	61.773	27.956	1.00	24.94
ATOM	1473	O	ALA	A	210	42.607	61.602	28.749	1.00	25.25
ATOM	1474	CB	ALA	A	210	43.427	60.472	25.805	1.00	26.30
ATOM	1475	N	TYR	A	211	44.117	62.945	27.746	1.00	25.21
ATOM	1476	CA	TYR	A	211	43.635	64.183	28.341	1.00	25.71
ATOM	1477	C	TYR	A	211	42.431	64.718	27.600	1.00	26.13
ATOM	1478	O	TYR	A	211	41.541	65.335	28.189	1.00	27.81
ATOM	1479	CB	TYR	A	211	44.709	65.241	28.293	1.00	25.39
ATOM	1480	CG	TYR	A	211	44.486	66.458	29.201	1.00	26.84
ATOM	1481	CD1	TYR	A	211	43.726	66.388	30.368	1.00	28.16
ATOM	1482	CD2	TYR	A	211	45.103	67.649	28.912	1.00	28.94
ATOM	1483	CE1	TYR	A	211	43.580	67.503	31.206	1.00	27.97
ATOM	1484	CE2	TYR	A	211	44.986	68.738	29.736	1.00	31.54
ATOM	1485	CZ	TYR	A	211	44.217	68.653	30.892	1.00	29.76
ATOM	1486	OH	TYR	A	211	44.094	69.774	31.654	1.00	28.46
ATOM	1487	N	SER	A	212	42.393	64.494	26.297	1.00	26.81
ATOM	1488	CA	SER	A	212	41.339	65.067	25.490	1.00	26.75
ATOM	1489	C	SER	A	212	39.978	64.470	25.719	1.00	26.28
ATOM	1490	O	SER	A	212	39.837	63.264	25.890	1.00	24.94
ATOM	1491	CB	SER	A	212	41.627	64.896	24.022	1.00	27.36
ATOM	1492	OG	SER	A	212	40.665	65.666	23.334	1.00	30.68
ATOM	1493	N	ALA	A	213	38.966	65.333	25.717	1.00	26.33
ATOM	1494	CA	ALA	A	213	37.614	64.864	25.821	1.00	26.95
ATOM	1495	C	ALA	A	213	36.758	65.656	24.847	1.00	27.47
ATOM	1496	O	ALA	A	213	35.665	66.116	25.190	1.00	26.21
ATOM	1497	CB	ALA	A	213	37.119	65.001	27.240	1.00	28.10
ATOM	1498	N	LEU	A	214	37.297	65.781	23.628	1.00	27.83
ATOM	1499	CA	LEU	A	214	36.675	66.459	22.488	1.00	28.52
ATOM	1500	C	LEU	A	214	36.680	65.512	21.249	1.00	28.36
ATOM	1501	O	LEU	A	214	37.685	64.886	20.948	1.00	26.65
ATOM	1502	CB	LEU	A	214	37.477	67.719	22.104	1.00	29.14
ATOM	1503	CG	LEU	A	214	37.670	68.866	23.103	1.00	30.74
ATOM	1504	CD1	LEU	A	214	38.515	69.912	22.501	1.00	32.71
ATOM	1505	CD2	LEU	A	214	36.363	69.457	23.442	1.00	31.48
ATOM	1506	N	TRP	A	215	35.581	65.472	20.504	1.00	28.74
ATOM	1507	CA	TRP	A	215	35.499	64.653	19.296	1.00	29.38
ATOM	1508	C	TRP	A	215	34.829	65.419	18.180	1.00	29.51
ATOM	1509	O	TRP	A	215	33.624	65.644	18.208	1.00	28.64
ATOM	1510	CB	TRP	A	215	34.719	63.378	19.571	1.00	28.75
ATOM	1511	CG	TRP	A	215	35.313	62.597	20.678	1.00	28.51
ATOM	1512	CD1	TRP	A	215	36.238	61.608	20.582	1.00	29.30
ATOM	1513	CD2	TRP	A	215	35.053	62.765	22.084	1.00	30.05
ATOM	1514	NE1	TRP	A	215	36.555	61.125	21.841	1.00	27.30
ATOM	1515	CE2	TRP	A	215	35.844	61.818	22.778	1.00	28.78
ATOM	1516	CE3	TRP	A	215	34.225	63.612	22.824	1.00	29.11
ATOM	1517	CZ2	TRP	A	215	35.825	61.692	24.165	1.00	27.86
ATOM	1518	CZ3	TRP	A	215	34.204	63.486	24.192	1.00	29.94
ATOM	1519	CH2	TRP	A	215	35.003	62.521	24.852	1.00	29.39
ATOM	1520	N	TRP	A	216	35.624	65.867	17.224	1.00	30.56
ATOM	1521	CA	TRP	A	216	35.084	66.533	16.037	1.00	31.55
ATOM	1522	C	TRP	A	216	34.417	65.488	15.143	1.00	32.02
ATOM	1523	O	TRP	A	216	34.866	64.370	15.089	1.00	31.09
ATOM	1524	CB	TRP	A	216	36.202	67.133	15.221	1.00	32.03
ATOM	1525	CG	TRP	A	216	36.828	68.453	15.659	1.00	32.53
ATOM	1526	CD1	TRP	A	216	38.047	68.623	16.234	1.00	35.04

ATOM	1527	CD2	TRP	A	216	36.318	69.765	15.428	1.00 33.64
ATOM	1528	NE1	TRP	A	216	38.318	69.957	16.399	1.00 35.73
ATOM	1529	CE2	TRP	A	216	37.259	70.679	15.924	1.00 34.58
ATOM	1530	CE3	TRP	A	216	35.146	70.261	14.868	1.00 33.81
ATOM	1531	CZ2	TRP	A	216	37.076	72.043	15.866	1.00 34.54
ATOM	1532	CZ3	TRP	A	216	34.967	71.608	14.811	1.00 35.06
ATOM	1533	CH2	TRP	A	216	35.930	72.491	15.310	1.00 35.33
ATOM	1534	N	SER	A	217	33.331	65.853	14.455	1.00 33.12
ATOM	1535	CA	SER	A	217	32.698	64.963	13.494	1.00 33.26
ATOM	1536	C	SER	A	217	33.629	64.910	12.267	1.00 33.93
ATOM	1537	O	SER	A	217	34.552	65.709	12.145	1.00 33.61
ATOM	1538	CB	SER	A	217	31.289	65.465	13.119	1.00 33.02
ATOM	1539	OG	SER	A	217	31.362	66.694	12.380	1.00 33.81
ATOM	1540	N	PRO	A	218	33.463	63.936	11.381	1.00 34.85
ATOM	1541	CA	PRO	A	218	34.421	63.810	10.260	1.00 35.78
ATOM	1542	C	PRO	A	218	34.404	65.047	9.348	1.00 36.49
ATOM	1543	O	PRO	A	218	35.442	65.464	8.877	1.00 36.64
ATOM	1544	CB	PRO	A	218	34.005	62.513	9.563	1.00 36.92
ATOM	1545	CG	PRO	A	218	33.048	61.787	10.573	1.00 35.44
ATOM	1546	CD	PRO	A	218	32.423	62.899	11.388	1.00 34.89
ATOM	1547	N	ASN	A	219	33.236	65.634	9.177	1.00 37.94
ATOM	1548	CA	ASN	A	219	33.011	66.915	8.483	1.00 39.83
ATOM	1549	C	ASN	A	219	33.683	68.167	9.086	1.00 40.56
ATOM	1550	O	ASN	A	219	33.913	69.187	8.395	1.00 40.45
ATOM	1551	CB	ASN	A	219	31.519	67.268	8.647	1.00 39.50
ATOM	1552	CG	ASN	A	219	30.787	67.317	7.360	1.00 41.31
ATOM	1553	OD1	ASN	A	219	31.380	67.108	6.320	1.00 46.10
ATOM	1554	ND2	ASN	A	219	29.472	67.605	7.409	1.00 39.61
ATOM	1555	N	GLY	A	220	33.869	68.125	10.404	1.00 40.09
ATOM	1556	CA	GLY	A	220	34.267	69.296	11.139	1.00 40.36
ATOM	1557	C	GLY	A	220	33.044	70.160	11.406	1.00 40.26
ATOM	1558	O	GLY	A	220	33.157	71.298	11.808	1.00 40.94
ATOM	1559	N	THR	A	221	31.865	69.607	11.192	1.00 40.25
ATOM	1560	CA	THR	A	221	30.644	70.340	11.402	1.00 40.02
ATOM	1561	C	THR	A	221	30.442	70.461	12.899	1.00 39.77
ATOM	1562	O	THR	A	221	30.412	71.573	13.433	1.00 39.48
ATOM	1563	CB	THR	A	221	29.493	69.574	10.772	1.00 40.24
ATOM	1564	OG1	THR	A	221	29.619	69.594	9.347	1.00 42.51
ATOM	1565	CG2	THR	A	221	28.189	70.258	10.991	1.00 42.08
ATOM	1566	N	PHE	A	222	30.337	69.292	13.548	1.00 38.47
ATOM	1567	CA	PHE	A	222	30.094	69.165	14.965	1.00 37.43
ATOM	1568	C	PHE	A	222	31.312	68.859	15.815	1.00 36.12
ATOM	1569	O	PHE	A	222	32.184	68.058	15.411	1.00 35.24
ATOM	1570	CB	PHE	A	222	29.177	67.985	15.216	1.00 37.84
ATOM	1571	CG	PHE	A	222	27.878	68.040	14.490	1.00 39.38
ATOM	1572	CD1	PHE	A	222	26.830	68.768	14.996	1.00 39.66
ATOM	1573	CD2	PHE	A	222	27.693	67.310	13.320	1.00 39.54
ATOM	1574	CE1	PHE	A	222	25.605	68.804	14.331	1.00 41.91
ATOM	1575	CE2	PHE	A	222	26.488	67.332	12.661	1.00 40.33
ATOM	1576	CZ	PHE	A	222	25.435	68.078	13.168	1.00 40.84
ATOM	1577	N	LEU	A	223	31.297	69.458	17.015	1.00 34.08
ATOM	1578	CA	LEU	A	223	32.253	69.207	18.093	1.00 32.28
ATOM	1579	C	LEU	A	223	31.474	68.612	19.231	1.00 31.26
ATOM	1580	O	LEU	A	223	30.575	69.264	19.804	1.00 30.76
ATOM	1581	CB	LEU	A	223	32.814	70.487	18.622	1.00 31.83
ATOM	1582	CG	LEU	A	223	34.272	70.592	19.033	1.00 31.24
ATOM	1583	CD1	LEU	A	223	34.305	71.384	20.261	1.00 27.64
ATOM	1584	CD2	LEU	A	223	35.040	69.292	19.185	1.00 30.20
ATOM	1585	N	ALA	A	224	31.780	67.373	19.546	1.00 29.71
ATOM	1586	CA	ALA	A	224	31.167	66.759	20.667	1.00 29.39
ATOM	1587	C	ALA	A	224	32.211	66.839	21.766	1.00 29.58
ATOM	1588	O	ALA	A	224	33.414	66.879	21.481	1.00 29.87
ATOM	1589	CB	ALA	A	224	30.815	65.374	20.381	1.00 29.73
ATOM	1590	N	TYR	A	225	31.746	66.905	23.004	1.00 28.33
ATOM	1591	CA	TYR	A	225	32.624	66.979	24.160	1.00 28.44
ATOM	1592	C	TYR	A	225	31.951	66.480	25.451	1.00 27.99
ATOM	1593	O	TYR	A	225	30.705	66.397	25.551	1.00 27.26
ATOM	1594	CB	TYR	A	225	33.106	68.386	24.375	1.00 28.46
ATOM	1595	CG	TYR	A	225	32.029	69.376	24.813	1.00 32.08
ATOM	1596	CD1	TYR	A	225	31.692	69.521	26.145	1.00 32.98

ATOM	1597	CD2	TYR	A	225	31.395	70.201	23.894	1.00	35.25
ATOM	1598	CE1	TYR	A	225	30.742	70.421	26.541	1.00	35.61
ATOM	1599	CE2	TYR	A	225	30.453	71.137	24.295	1.00	35.83
ATOM	1600	CZ	TYR	A	225	30.125	71.227	25.616	1.00	36.19
ATOM	1601	OH	TYR	A	225	29.195	72.133	26.040	1.00	36.52
ATOM	1602	N	ALA	A	226	32.806	66.130	26.415	1.00	27.68
ATOM	1603	CA	ALA	A	226	32.399	65.607	27.689	1.00	26.92
ATOM	1604	C	ALA	A	226	32.764	66.611	28.743	1.00	27.73
ATOM	1605	O	ALA	A	226	33.718	67.428	28.572	1.00	28.02
ATOM	1606	CB	ALA	A	226	33.052	64.303	27.961	1.00	26.51
ATOM	1607	N	GLN	A	227	31.979	66.590	29.821	1.00	26.98
ATOM	1608	CA	GLN	A	227	32.178	67.501	30.913	1.00	26.85
ATOM	1609	C	GLN	A	227	32.153	66.680	32.133	1.00	26.18
ATOM	1610	O	GLN	A	227	31.233	65.922	32.313	1.00	25.02
ATOM	1611	CB	GLN	A	227	31.066	68.534	31.012	1.00	27.87
ATOM	1612	CG	GLN	A	227	31.129	69.423	32.276	1.00	26.85
ATOM	1613	CD	GLN	A	227	29.856	70.174	32.462	1.00	25.53
ATOM	1614	OE1	GLN	A	227	28.932	69.635	33.057	1.00	26.19
ATOM	1615	NE2	GLN	A	227	29.772	71.394	31.914	1.00	26.60
ATOM	1616	N	PHE	A	228	33.187	66.846	32.948	1.00	25.69
ATOM	1617	CA	PHE	A	228	33.363	66.112	34.190	1.00	26.42
ATOM	1618	C	PHE	A	228	33.228	67.057	35.414	1.00	27.26
ATOM	1619	O	PHE	A	228	33.673	68.204	35.411	1.00	27.24
ATOM	1620	CB	PHE	A	228	34.722	65.395	34.210	1.00	25.89
ATOM	1621	CG	PHE	A	228	34.957	64.479	33.015	1.00	24.46
ATOM	1622	CD1	PHE	A	228	34.352	63.243	32.933	1.00	23.87
ATOM	1623	CD2	PHE	A	228	35.735	64.871	31.997	1.00	23.06
ATOM	1624	CE1	PHE	A	228	34.547	62.444	31.869	1.00	23.93
ATOM	1625	CE2	PHE	A	228	35.928	64.054	30.915	1.00	25.34
ATOM	1626	CZ	PHE	A	228	35.322	62.852	30.852	1.00	23.94
ATOM	1627	N	ASN	A	229	32.568	66.551	36.434	1.00	28.68
ATOM	1628	CA	ASN	A	229	32.295	67.292	37.659	1.00	29.51
ATOM	1629	C	ASN	A	229	32.904	66.514	38.786	1.00	29.69
ATOM	1630	O	ASN	A	229	32.467	65.417	39.049	1.00	29.16
ATOM	1631	CB	ASN	A	229	30.781	67.371	37.879	1.00	30.11
ATOM	1632	CG	ASN	A	229	30.409	68.340	38.981	1.00	30.80
ATOM	1633	OD1	ASN	A	229	31.127	68.432	39.990	1.00	27.42
ATOM	1634	ND2	ASN	A	229	29.280	69.083	38.778	1.00	30.54
ATOM	1635	N	ASP	A	230	33.923	67.085	39.435	1.00	31.03
ATOM	1636	CA	ASP	A	230	34.614	66.413	40.525	1.00	31.69
ATOM	1637	C	ASP	A	230	34.302	67.071	41.890	1.00	31.33
ATOM	1638	O	ASP	A	230	34.968	66.822	42.883	1.00	31.35
ATOM	1639	CB	ASP	A	230	36.120	66.408	40.231	1.00	31.98
ATOM	1640	CG	ASP	A	230	36.512	65.329	39.212	1.00	33.87
ATOM	1641	OD1	ASP	A	230	35.938	65.329	38.087	1.00	32.91
ATOM	1642	OD2	ASP	A	230	37.361	64.439	39.458	1.00	33.90
ATOM	1643	N	THR	A	231	33.255	67.868	41.935	1.00	31.67
ATOM	1644	CA	THR	A	231	32.858	68.565	43.170	1.00	32.12
ATOM	1645	C	THR	A	231	33.045	67.790	44.458	1.00	32.06
ATOM	1646	O	THR	A	231	33.673	68.307	45.387	1.00	32.58
ATOM	1647	CB	THR	A	231	31.416	69.087	43.087	1.00	32.16
ATOM	1648	OG1	THR	A	231	31.318	70.061	42.046	1.00	31.97
ATOM	1649	CG2	THR	A	231	31,048	69.939	44.353	1.00	34.78
ATOM	1650	N	GLU	A	232	32.518	66.574	44.525	1.00	31.58
ATOM	1651	CA	GLU	A	232	32.633	65.782	45.746	1.00	31.96
ATOM	1652	C	GLU	A	232	33.679	64.684	45.675	1.00	30.11
ATOM	1653	O	GLU	A	232	33.591	63.772	46.436	1.00	29.23
ATOM	1654	CB	GLU	A	232	31.273	65.070	46.060	1.00	33.29
ATOM	1655	CG	GLU	A	232	30.064	65.973	46.295	1.00	36.12
ATOM	1656	CD	GLU	A	232	28.797	65.181	46.584	1.00	42.23
ATOM	1657	OE1	GLU	A	232	28.699	64.561	47.690	1.00	46.60
ATOM	1658	OE2	GLU	A	232	27.910	65.145	45.696	1.00	43.91
ATOM	1659	N	VAL	A	233	34.595	64.674	44.709	1.00	28.95
ATOM	1660	CA	VAL	A	233	35.585	63.588	44.698	1.00	28.12
ATOM	1661	C	VAL	A	233	36.618	64.015	45.717	1.00	26.69
ATOM	1662	O	VAL	A	233	37.020	65.149	45.677	1.00	25.94
ATOM	1663	CB	VAL	A	233	36.300	63.426	43.333	1.00	27.51
ATOM	1664	CG1	VAL	A	233	37.297	62.296	43.406	1.00	27.86
ATOM	1665	CG2	VAL	A	233	35.316	63.155	42.235	1.00	29.07
ATOM	1666	N	PRO	A	234	37.017	63.161	46.638	1.00	26.33

ATOM	1667	CA	PRO	A	234	38.029	63.545	47.609	1.00 26.79
ATOM	1668	C	PRO	A	234	39.406	63.783	46.991	1.00 27.08
ATOM	1669	O	PRO	A	234	39.704	63.379	45.845	1.00 26.15
ATOM	1670	CB	PRO	A	234	38.062	62.358	48.564	1.00 27.74
ATOM	1671	CG	PRO	A	234	36.840	61.566	48.293	1.00 26.40
ATOM	1672	CD	PRO	A	234	36.566	61.777	46.860	1.00 27.06
ATOM	1673	N	LEU	A	235	40.246	64.459	47.764	1.00 26.80
ATOM	1674	CA	LEU	A	235	41.537	64.873	47.289	1.00 27.73
ATOM	1675	C	LEU	A	235	42.615	64.040	47.830	1.00 26.54
ATOM	1676	O	LEU	A	235	42.621	63.857	48.996	1.00 26.56
ATOM	1677	CB	LEU	A	235	41.819	66.300	47.752	1.00 28.91
ATOM	1678	CG	LEU	A	235	40.754	67.294	47.277	1.00 31.69
ATOM	1679	CD1	LEU	A	235	40.920	68.649	47.957	1.00 32.34
ATOM	1680	CD2	LEU	A	235	40.820	67.410	45.771	1.00 32.38
ATOM	1681	N	ILE	A	236	43.504	63.487	47.004	1.00 25.35
ATOM	1682	CA	ILE	A	236	44.723	62.929	47.574	1.00 25.28
ATOM	1683	C	ILE	A	236	45.668	64.117	47.741	1.00 25.50
ATOM	1684	O	ILE	A	236	45.717	65.003	46.891	1.00 26.26
ATOM	1685	CB	ILE	A	236	45.341	61.848	46.716	1.00 25.40
ATOM	1686	CG1	ILE	A	236	46.695	61.374	47.307	1.00 25.58
ATOM	1687	CG2	ILE	A	236	45.651	62.336	45.346	1.00 24.79
ATOM	1688	CD1	ILE	A	236	46.610	60.657	48.552	1.00 24.55
ATOM	1689	N	GLU	A	237	46.423	64.127	48.828	1.00 25.87
ATOM	1690	CA	GLU	A	237	47.343	65.227	49.166	1.00 26.29
ATOM	1691	C	GLU	A	237	48.706	64.679	49.490	1.00 26.07
ATOM	1692	O	GLU	A	237	48.809	63.702	50.219	1.00 26.68
ATOM	1693	CB	GLU	A	237	46.834	66.023	50.364	1.00 25.50
ATOM	1694	CG	GLU	A	237	45.506	66.661	50.098	1.00 28.14
ATOM	1695	CD	GLU	A	237	45.044	67.593	51.197	1.00 30.95
ATOM	1696	OE1	GLU	A	237	45.470	67.411	52.326	1.00 36.58
ATOM	1697	OE2	GLU	A	237	44.245	68.498	50.924	1.00 33.62
ATOM	1698	N	TYR	A	238	49.750	65.277	48.914	1.00 25.45
ATOM	1699	CA	TYR	A	238	51.112	64.861	49.221	1.00 25.12
ATOM	1700	C	TYR	A	238	52.014	66.056	49.002	1.00 25.07
ATOM	1701	O	TYR	A	238	51.636	67.011	48.319	1.00 24.71
ATOM	1702	CB	TYR	A	238	51.563	63.678	48.371	1.00 25.28
ATOM	1703	CG	TYR	A	238	51.416	63.908	46.868	1.00 24.32
ATOM	1704	CD1	TYR	A	238	52.438	64.483	46.123	1.00 24.57
ATOM	1705	CD2	TYR	A	238	50.255	63.542	46.201	1.00 26.15
ATOM	1706	CE1	TYR	A	238	52.306	64.657	44.717	1.00 25.65
ATOM	1707	CE2	TYR	A	238	50.089	63.744	44.810	1.00 25.06
ATOM	1708	CZ	TYR	A	238	51.112	64.298	44.078	1.00 27.74
ATOM	1709	OH	TYR	A	238	50.935	64.498	42.721	1.00 29.66
ATOM	1710	N	SER	A	239	53.198	65.991	49.592	1.00 24.64
ATOM	1711	CA	SER	A	239	54.149	67.099	49.589	1.00 25.18
ATOM	1712	C	SER	A	239	54.986	67.085	48.329	1.00 25.42
ATOM	1713	O	SER	A	239	55.279	66.013	47.835	1.00 25.65
ATOM	1714	CB	SER	A	239	55.094	66.970	50.788	1.00 23.96
ATOM	1715	OG	SER	A	239	54.433	67.261	51.996	1.00 26.38
ATOM	1716	N	PHE	A	240	55.303	68.259	47.770	1.00 25.12
ATOM	1717	CA	PHE	A	240	56.235	68.334	46.636	1.00 27.19
ATOM	1718	C	PHE	A	240	57.338	69.297	47.116	1.00 27.23
ATOM	1719	O	PHE	A	240	57.045	70.421	47.479	1.00 28.10
ATOM	1720	CB	PHE	A	240	55.561	68.831	45.338	1.00 27.32
ATOM	1721	CG	PHE	A	240	56.423	68.708	44.091	1.00 26.88
ATOM	1722	CD1	PHE	A	240	56.436	67.560	43.366	1.00 29.66
ATOM	1723	CD2	PHE	A	240	57.180	69.758	43.652	1.00 26.22
ATOM	1724	CE1	PHE	A	240	57.219	67.440	42.209	1.00 31.46
ATOM	1725	CE2	PHE	A	240	57.948	69.661	42.556	1.00 29.05
ATOM	1726	CZ	PHE	A	240	57.973	68.483	41.804	1.00 30.46
ATOM	1727	N	TYR	A	241	58.585	68.849	47.126	1.00 27.65
ATOM	1728	CA	TYR	A	241	59.682	69.646	47.733	1.00 27.45
ATOM	1729	C	TYR	A	241	60.310	70.677	46.794	1.00 27.41
ATOM	1730	O	TYR	A	241	60.774	71.706	47.236	1.00 27.31
ATOM	1731	CB	TYR	A	241	60.713	68.702	48.345	1.00 27.05
ATOM	1732	CG	TYR	A	241	60.043	67.793	49.350	1.00 25.67
ATOM	1733	CD1	TYR	A	241	59.699	68.266	50.584	1.00 25.88
ATOM	1734	CD2	TYR	A	241	59.644	66.509	49.023	1.00 25.17
ATOM	1735	CE1	TYR	A	241	59.026	67.492	51.499	1.00 22.03
ATOM	1736	CE2	TYR	A	241	58.962	65.716	49.949	1.00 25.79

ATOM	1737	CZ	TYR	A	241	58.653	66.227	51.190	1.00	23.56
ATOM	1738	OH	TYR	A	241	57.963	65.495	52.149	1.00	21.07
ATOM	1739	N	SER	A	242	60.253	70.413	45.497	1.00	27.48
ATOM	1740	CA	SER	A	242	60.798	71.303	44.478	1.00	28.37
ATOM	1741	C	SER	A	242	62.315	71.519	44.630	1.00	28.05
ATOM	1742	O	SER	A	242	62.977	70.770	45.298	1.00	25.76
ATOM	1743	CB	SER	A	242	60.059	72.632	44.493	1.00	28.30
ATOM	1744	OG	SER	A	242	60.394	73.384	43.322	1.00	30.80
ATOM	1745	N	ASP	A	243	62.841	72.551	43.985	1.00	29.45
ATOM	1746	CA	ASP	A	243	64.239	72.889	44.103	1.00	30.35
ATOM	1747	C	ASP	A	243	64.607	73.246	45.548	1.00	30.57
ATOM	1748	O	ASP	A	243	63.767	73.633	46.347	1.00	29.24
ATOM	1749	CB	ASP	A	243	64.525	74.099	43.236	1.00	31.66
ATOM	1750	CG	ASP	A	243	64.376	73.792	41.724	1.00	37.62
ATOM	1751	OD1	ASP	A	243	64.539	72.598	41.307	1.00	41.54
ATOM	1752	OD2	ASP	A	243	64.094	74.696	40.888	1.00	43.31
ATOM	1753	N	GLU	A	244	65.889	73.163	45.849	1.00	31.16
ATOM	1754	CA	GLU	A	244	66.398	73.505	47.156	1.00	32.38
ATOM	1755	C	GLU	A	244	65.909	74.835	47.691	1.00	32.53
ATOM	1756	O	GLU	A	244	65.763	75.013	48.916	1.00	29.71
ATOM	1757	CB	GLU	A	244	67.895	73.640	47.058	1.00	32.97
ATOM	1758	CG	GLU	A	244	68.599	73.090	48.244	1.00	36.11
ATOM	1759	CD	GLU	A	244	70.079	73.349	48.175	1.00	38.61
ATOM	1760	OE1	GLU	A	244	70.673	72.877	47.190	1.00	37.80
ATOM	1761	OE2	GLU	A	244	70.612	74.004	49.096	1.00	38.10
ATOM	1762	N	SER	A	245	65.716	75.778	46.755	1.00	32.65
ATOM	1763	CA	SER	A	245	65.358	77.145	47.080	1.00	32.39
ATOM	1764	C	SER	A	245	63.979	77.307	47.670	1.00	32.11
ATOM	1765	O	SER	A	245	63.696	78.337	48.272	1.00	32.83
ATOM	1766	CB	SER	A	245	65.490	78.040	45.846	1.00	32.75
ATOM	1767	OG	SER	A	245	64.890	77.446	44.715	1.00	34.54
ATOM	1768	N	LEU	A	246	63.110	76.311	47.547	1.00	31.96
ATOM	1769	CA	LEU	A	246	61.750	76.508	48.086	1.00	31.53
ATOM	1770	C	LEU	A	246	61.638	76.325	49.579	1.00	31.60
ATOM	1771	O	LEU	A	246	62.185	75.250	50.040	1.00	27.72
ATOM	1772	CB	LEU	A	246	60.730	75.520	47.518	1.00	31.55
ATOM	1773	CG	LEU	A	246	59.289	75.989	47.192	1.00	35.35
ATOM	1774	CD1	LEU	A	246	58.258	74.803	47.222	1.00	36.22
ATOM	1775	CD2	LEU	A	246	58.759	77.136	47.970	1.00	34.37
ATOM	1776	N	GLN	A	247	61.493	77.376	50.319	1.00	28.90
ATOM	1777	CA	GLN	A	247	61.577	77.346	51.762	1.00	27.73
ATOM	1778	C	GLN	A	247	60.535	76.405	52.413	1.00	27.30
ATOM	1779	O	GLN	A	247	60.857	75.551	53.263	1.00	25.43
ATOM	1780	CB	GLN	A	247	61.510	78.759	52.314	1.00	28.64
ATOM	1781	CG	GLN	A	247	61.637	78.795	53.838	1.00	28.67
ATOM	1782	CD	GLN	A	247	61.930	80.174	54.399	1.00	30.01
ATOM	1783	OE1	GLN	A	247	62.833	80.347	55.276	1.00	28.72
ATOM	1784	NE2	GLN	A	247	61.177	81.152	53.940	1.00	29.07
ATOM	1785	N	TYR	A	248	59.305	76.502	51.946	1.00	26.79
ATOM	1786	CA	TYR	A	248	58.231	75.642	52.422	1.00	26.56
ATOM	1787	C	TYR	A	248	57.767	74.732	51.288	1.00	26.50
ATOM	1788	O	TYR	A	248	57.536	75.189	50.161	1.00	26.57
ATOM	1789	CB	TYR	A	248	57.029	76.433	52.838	1.00	26.24
ATOM	1790	CG	TYR	A	248	57.240	77.264	54.079	1.00	27.06
ATOM	1791	CD1	TYR	A	248	57.980	78.450	54.039	1.00	26.07
ATOM	1792	CD2	TYR	A	248	56.685	76.875	55.285	1.00	24.74
ATOM	1793	CE1	TYR	A	248	58.175	79.206	55.193	1.00	28.15
ATOM	1794	CE2	TYR	A	248	56.884	77.617	56.448	1.00	23.55
ATOM	1795	CZ	TYR	A	248	57.605	78.774	56.410	1.00	25.61
ATOM	1796	OH	TYR	A	248	57.744	79.500	57.583	1.00	25.29
ATOM	1797	N	PRO	A	249	57.664	73.457	51.583	1.00	25.69
ATOM	1798	CA	PRO	A	249	57.186	72.489	50.608	1.00	26.62
ATOM	1799	C	PRO	A	249	55.756	72.782	50.169	1.00	27.20
ATOM	1800	O	PRO	A	249	54.943	73.334	50.908	1.00	24.53
ATOM	1801	CB	PRO	A	249	57.238	71.166	51.373	1.00	27.47
ATOM	1802	CG	PRO	A	249	58.249	71.400	52.431	1.00	27.65
ATOM	1803	CD	PRO	A	249	58.019	72.840	52.862	1.00	25.35
ATOM	1804	N	LYS	A	250	55.466	72.391	48.937	1.00	28.36
ATOM	1805	CA	LYS	A	250	54.179	72.636	48.335	1.00	30.14
ATOM	1806	C	LYS	A	250	53.342	71.406	48.673	1.00	29.50

ATOM	1807	O	LYS	A	250	53.883	70.327	48.852	1.00 31.02
ATOM	1808	CB	LYS	A	250	54.407	72.812	46.805	1.00 30.66
ATOM	1809	CG	LYS	A	250	53.309	73.465	46.035	1.00 35.89
ATOM	1810	CD	LYS	A	250	53.636	73.529	44.530	1.00 40.72
ATOM	1811	CE	LYS	A	250	52.387	73.724	43.659	1.00 44.34
ATOM	1812	NZ	LYS	A	250	52.685	73.611	42.161	1.00 45.13
ATOM	1813	N	THR	A	251	52.052	71.571	48.878	1.00 29.70
ATOM	1814	CA	THR	A	251	51.155	70.441	49.042	1.00 29.79
ATOM	1815	C	THR	A	251	50.389	70.285	47.711	1.00 29.85
ATOM	1816	O	THR	A	251	49.656	71.169	47.303	1.00 29.97
ATOM	1817	CB	THR	A	251	50.135	70.660	50.148	1.00 29.96
ATOM	1818	OG1	THR	A	251	50.769	70.672	51.434	1.00 28.50
ATOM	1819	CG2	THR	A	251	49.157	69.445	50.230	1.00 31.41
ATOM	1820	N	VAL	A	252	50.571	69.175	47.025	1.00 29.44
ATOM	1821	CA	VAL	A	252	49.828	68.936	45.793	1.00 28.90
ATOM	1822	C	VAL	A	252	48.502	68.312	46.149	1.00 27.81
ATOM	1823	O	VAL	A	252	48.456	67.444	47.002	1.00 26.87
ATOM	1824	CB	VAL	A	252	50.594	67.995	44.908	1.00 29.42
ATOM	1825	CG1	VAL	A	252	49.763	67.607	43.712	1.00 31.02
ATOM	1826	CG2	VAL	A	252	51.887	68.656	44.459	1.00 30.50
ATOM	1827	N	ARG	A	253	47.425	68.776	45.519	1.00 27.54
ATOM	1828	CA	ARG	A	253	46.066	68.291	45.804	1.00 28.17
ATOM	1829	C	ARG	A	253	45.369	67.924	44.528	1.00 26.49
ATOM	1830	O	ARG	A	253	45.202	68.747	43.684	1.00 26.20
ATOM	1831	CB	ARG	A	253	45.215	69.377	46.533	1.00 29.21
ATOM	1832	CG	ARG	A	253	45.749	69.804	47.911	1.00 31.87
ATOM	1833	CD	ARG	A	253	45.055	71.048	48.487	1.00 39.81
ATOM	1834	NE	ARG	A	253	45.528	72.240	47.756	1.00 49.04
ATOM	1835	CZ	ARG	A	253	46.583	73.015	48.126	1.00 54.08
ATOM	1836	NH1	ARG	A	253	47.260	72.775	49.254	1.00 51.93
ATOM	1837	NH2	ARG	A	253	46.938	74.053	47.375	1.00 56.78
ATOM	1838	N	VAL	A	254	44.897	66.701	44.414	1.00 26.67
ATOM	1839	CA	VAL	A	254	44.282	66.249	43.178	1.00 26.16
ATOM	1840	C	VAL	A	254	43.055	65.428	43.507	1.00 26.32
ATOM	1841	O	VAL	A	254	43.119	64.558	44.369	1.00 25.35
ATOM	1842	CB	VAL	A	254	45.218	65.280	42.442	1.00 27.20
ATOM	1843	CG1	VAL	A	254	44.594	64.755	41.129	1.00 26.94
ATOM	1844	CG2	VAL	A	254	46.593	65.917	42.198	1.00 27.66
ATOM	1845	N	PRO	A	255	41.951	65.684	42.810	1.00 24.55
ATOM	1846	CA	PRO	A	255	40.759	64.856	42.931	1.00 24.42
ATOM	1847	C	PRO	A	255	41.057	63.482	42.339	1.00 23.94
ATOM	1848	O	PRO	A	255	41.366	63.386	41.161	1.00 24.49
ATOM	1849	CB	PRO	A	255	39.712	65.621	42.117	1.00 24.86
ATOM	1850	CG	PRO	A	255	40.213	66.975	41.956	1.00 24.37
ATOM	1851	CD	PRO	A	255	41.743	66.781	41.867	1.00 25.52
ATOM	1852	N	TYR	A	256	40.923	62.466	43.167	1.00 22.02
ATOM	1853	CA	TYR	A	256	41.305	61.150	42.888	1.00 21.42
ATOM	1854	C	TYR	A	256	40.424	60.239	43.690	1.00 21.84
ATOM	1855	O	TYR	A	256	40.562	60.188	44.896	1.00 22.15
ATOM	1856	CB	TYR	A	256	42.725	60.968	43.414	1.00 20.43
ATOM	1857	CG	TYR	A	256	43.336	59.599	43.166	1.00 20.95
ATOM	1858	CD1	TYR	A	256	42.920	58.486	43.867	1.00 22.41
ATOM	1859	CD2	TYR	A	256	44.371	59.440	42.283	1.00 19.15
ATOM	1860	CE1	TYR	A	256	43.500	57.259	43.687	1.00 21.46
ATOM	1861	CE2	TYR	A	256	44.948	58.223	42.083	1.00 19.11
ATOM	1862	CZ	TYR	A	256	44.535	57.129	42.781	1.00 21.87
ATOM	1863	OH	TYR	A	256	45.127	55.875	42.546	1.00 19.77
ATOM	1864	N	PRO	A	257	39.560	59.467	43.031	1.00 22.36
ATOM	1865	CA	PRO	A	257	38.666	58.524	43.725	1.00 22.11
ATOM	1866	C	PRO	A	257	39.325	57.225	44.064	1.00 22.59
ATOM	1867	O	PRO	A	257	39.655	56.471	43.148	1.00 24.08
ATOM	1868	CB	PRO	A	257	37.535	58.252	42.700	1.00 22.29
ATOM	1869	CG	PRO	A	257	38.102	58.730	41.316	1.00 23.05
ATOM	1870	CD	PRO	A	257	39.311	59.551	41.588	1.00 22.21
ATOM	1871	N	LYS	A	258	39.487	56.926	45.340	1.00 21.64
ATOM	1872	CA	LYS	A	258	40.003	55.658	45.750	1.00 21.77
ATOM	1873	C	LYS	A	258	38.828	54.695	45.750	1.00 22.73
ATOM	1874	O	LYS	A	258	37.704	55.116	45.589	1.00 22.89
ATOM	1875	CB	LYS	A	258	40.737	55.745	47.096	1.00 21.30
ATOM	1876	CG	LYS	A	258	41.902	56.717	47.043	1.00 21.60

ATOM	1877	CD	LYS	A	258	42.551	57.039	48.388	1.00 22.69
ATOM	1878	CE	LYS	A	258	43.967	57.664	48.222	1.00 22.08
ATOM	1879	NZ	LYS	A	258	45.102	56.699	48.446	1.00 19.83
ATOM	1880	N	ALA	A	259	39.111	53.404	45.849	1.00 23.38
ATOM	1881	CA	ALA	A	259	38.100	52.365	45.759	1.00 25.01
ATOM	1882	C	ALA	A	259	36.915	52.595	46.691	1.00 26.15
ATOM	1883	O	ALA	A	259	37.087	52.705	47.920	1.00 24.93
ATOM	1884	CB	ALA	A	259	38.723	51.017	46.042	1.00 25.41
ATOM	1885	N	GLY	A	260	35.722	52.685	46.083	1.00 25.93
ATOM	1886	CA	GLY	A	260	34.493	52.907	46.818	1.00 26.52
ATOM	1887	C	GLY	A	260	34.231	54.369	47.166	1.00 27.37
ATOM	1888	O	GLY	A	260	33.297	54.671	47.868	1.00 28.17
ATOM	1889	N	ALA	A	261	35.031	55.301	46.681	1.00 27.63
ATOM	1890	CA	ALA	A	261	34.779	56.694	47.042	1.00 27.82
ATOM	1891	C	ALA	A	261	33.853	57.342	46.022	1.00 27.48
ATOM	1892	O	ALA	A	261	33.516	56.715	45.067	1.00 29.08
ATOM	1893	CB	ALA	A	261	36.112	57.464	47.121	1.00 27.40
ATOM	1894	N	VAL	A	262	33.502	58.608	46.197	1.00 26.51
ATOM	1895	CA	VAL	A	262	32.677	59.306	45.242	1.00 26.35
ATOM	1896	C	VAL	A	262	33.470	59.507	43.928	1.00 27.11
ATOM	1897	O	VAL	A	262	34.591	60.033	43.969	1.00 27.25
ATOM	1898	CB	VAL	A	262	32.216	60.670	45.871	1.00 26.18
ATOM	1899	CG1	VAL	A	262	31.510	61.532	44.897	1.00 27.60
ATOM	1900	CG2	VAL	A	262	31.290	60.445	47.100	1.00 25.69
ATOM	1901	N	ASN	A	263	32.911	59.063	42.783	1.00 26.63
ATOM	1902	CA	ASN	A	263	33.526	59.241	41.456	1.00 26.59
ATOM	1903	C	ASN	A	263	33.094	60.531	40.841	1.00 26.64
ATOM	1904	O	ASN	A	263	32.046	61.067	41.206	1.00 28.69
ATOM	1905	CB	ASN	A	263	33.039	58.177	40.466	1.00 26.67
ATOM	1906	CG	ASN	A	263	33.876	56.899	40.462	1.00 25.47
ATOM	1907	OD1	ASN	A	263	33.447	55.858	39.889	1.00 22.78
ATOM	1908	ND2	ASN	A	263	35.032	56.935	41.104	1.00 21.04
ATOM	1909	N	PRO	A	264	33.823	61.022	39.855	1.00 25.42
ATOM	1910	CA	PRO	A	264	33.356	62.186	39.104	1.00 25.26
ATOM	1911	C	PRO	A	264	32.113	61.791	38.283	1.00 25.24
ATOM	1912	O	PRO	A	264	31.951	60.626	37.989	1.00 24.64
ATOM	1913	CB	PRO	A	264	34.509	62.446	38.162	1.00 25.04
ATOM	1914	CG	PRO	A	264	35.114	61.031	37.971	1.00 25.43
ATOM	1915	CD	PRO	A	264	35.089	60.500	39.329	1.00 25.69
ATOM	1916	N	THR	A	265	31.265	62.742	37.936	1.00 25.73
ATOM	1917	CA	THR	A	265	30.099	62.489	37.086	1.00 25.58
ATOM	1918	C	THR	A	265	30.461	63.060	35.758	1.00 25.42
ATOM	1919	O	THR	A	265	31.350	63.881	35.666	1.00 24.24
ATOM	1920	CB	THR	A	265	28.841	63.211	37.588	1.00 25.82
ATOM	1921	OG1	THR	A	265	29.161	64.580	37.928	1.00 26.18
ATOM	1922	CG2	THR	A	265	28.327	62.577	38.903	1.00 27.07
ATOM	1923	N	VAL	A	266	29.688	62.689	34.747	1.00 25.66
ATOM	1924	CA	VAL	A	266	30.023	63.031	33.391	1.00 25.11
ATOM	1925	C	VAL	A	266	28.770	63.344	32.634	1.00 25.81
ATOM	1926	O	VAL	A	266	27.747	62.675	32.823	1.00 25.44
ATOM	1927	CB	VAL	A	266	30.757	61.814	32.707	1.00 24.14
ATOM	1928	CG1	VAL	A	266	29.846	60.614	32.638	1.00 24.68
ATOM	1929	CG2	VAL	A	266	31.317	62.168	31.352	1.00 22.65
ATOM	1930	N	LYS	A	267	28.877	64.351	31.776	1.00 26.44
ATOM	1931	CA	LYS	A	267	27.818	64.704	30.845	1.00 28.81
ATOM	1932	C	LYS	A	267	28.438	64.693	29.463	1.00 29.40
ATOM	1933	O	LYS	A	267	29.647	64.853	29.339	1.00 29.11
ATOM	1934	CB	LYS	A	267	27.266	66.090	31.154	1.00 28.26
ATOM	1935	CG	LYS	A	267	26.294	66.103	32.339	1.00 31.32
ATOM	1936	CD	LYS	A	267	25.870	67.514	32.685	1.00 32.66
ATOM	1937	CE	LYS	A	267	25.259	67.592	34.075	1.00 35.71
ATOM	1938	NZ	LYS	A	267	24.396	68.825	34.141	1.00 36.32
ATOM	1939	N	PHE	A	268	27.598	64.533	28.440	1.00 30.61
ATOM	1940	CA	PHE	A	268	28.025	64.571	27.034	1.00 31.41
ATOM	1941	C	PHE	A	268	27.235	65.605	26.204	1.00 32.03
ATOM	1942	O	PHE	A	268	26.005	65.608	26.229	1.00 32.82
ATOM	1943	CB	PHE	A	268	27.838	63.204	26.411	1.00 31.30
ATOM	1944	CG	PHE	A	268	28.520	63.067	25.095	1.00 31.64
ATOM	1945	CD1	PHE	A	268	29.880	62.827	25.035	1.00 33.36
ATOM	1946	CD2	PHE	A	268	27.819	63.247	23.923	1.00 31.47

ATOM	1947	CE1	PHE	A	268	30.533	62.727	23.802	1.00 32.09
ATOM	1948	CE2	PHE	A	268	28.446	61.163	22.710	1.00 32.55
ATOM	1949	CZ	PHE	A	268	29.816	62.893	22.644	1.00 32.53
ATOM	1950	N	PHE	A	269	27.934	66.454	25.450	1.00 32.86
ATOM	1951	CA	PHE	A	269	27.291	67.521	24.674	1.00 32.97
ATOM	1952	C	PHE	A	269	27.756	67.551	23.205	1.00 32.67
ATOM	1953	O	PHE	A	269	28.879	67.166	22.915	1.00 32.52
ATOM	1954	CB	PHE	A	269	27.638	68.890	25.279	1.00 33.14
ATOM	1955	CG	PHE	A	269	27.269	69.041	26.719	1.00 34.68
ATOM	1956	CD1	PHE	A	269	28.134	68.658	27.703	1.00 33.64
ATOM	1957	CD2	PHE	A	269	26.047	69.584	27.087	1.00 35.51
ATOM	1958	CE1	PHE	A	269	27.801	68.794	29.012	1.00 34.64
ATOM	1959	CE2	PHE	A	269	25.708	69.713	28.399	1.00 35.64
ATOM	1960	CZ	PHE	A	269	26.588	69.304	29.372	1.00 33.01
ATOM	1961	N	VAL	A	270	26.915	68.049	22.294	1.00 32.38
ATOM	1962	CA	VAL	A	270	27.332	68.262	20.903	1.00 32.01
ATOM	1963	C	VAL	A	270	27.011	69.672	20.420	1.00 32.54
ATOM	1964	O	VAL	A	270	25.890	70.151	20.552	1.00 32.08
ATOM	1965	CB	VAL	A	270	26.626	67.299	19.943	1.00 32.41
ATOM	1966	CG1	VAL	A	270	27.157	67.496	18.537	1.00 30.35
ATOM	1967	CG2	VAL	A	270	26.808	65.873	20.387	1.00 31.14
ATOM	1968	N	VAL	A	271	27.970	70.343	19.822	1.00 33.76
ATOM	1969	CA	VAL	A	271	27.705	71.683	19.309	1.00 34.90
ATOM	1970	C	VAL	A	271	27.898	71.808	17.809	1.00 35.24
ATOM	1971	O	VAL	A	271	28.907	71.374	17.296	1.00 34.81
ATOM	1972	CB	VAL	A	271	28.687	72.657	19.884	1.00 35.36
ATOM	1973	CG1	VAL	A	271	28.226	74.078	19.605	1.00 37.44
ATOM	1974	CG2	VAL	A	271	28.838	72.412	21.348	1.00 36.04
ATOM	1975	N	ASN	A	272	26.941	72.413	17.116	1.00 36.45
ATOM	1976	CA	ASN	A	272	27.113	72.739	15.706	1.00 37.59
ATOM	1977	C	ASN	A	272	27.992	73.955	15.588	1.00 38.09
ATOM	1978	O	ASN	A	272	27.597	75.049	15.878	1.00 37.84
ATOM	1979	CB	ASN	A	272	25.803	73.040	15.001	1.00 37.83
ATOM	1980	CG	ASN	A	272	25.973	73.130	13.501	1.00 39.15
ATOM	1981	OD1	ASN	A	272	27.064	73.491	12.980	1.00 39.51
ATOM	1982	ND2	ASN	A	272	24.920	72.752	12.785	1.00 37.38
ATOM	1983	N	THR	A	273	29.189	73.691	15.127	1.00 39.64
ATOM	1984	CA	THR	A	273	30.254	74.616	14.914	1.00 41.12
ATOM	1985	C	THR	A	273	30.121	75.388	13.592	1.00 42.88
ATOM	1986	O	THR	A	273	30.963	76.213	13.256	1.00 42.65
ATOM	1987	CB	THR	A	273	31.493	73.705	14.887	1.00 41.68
ATOM	1988	OG1	THR	A	273	32.322	73.920	16.053	1.00 42.46
ATOM	1989	CG2	THR	A	273	32.345	73.930	13.693	1.00 40.87
ATOM	1990	N	ASP	A	274	29.089	75.113	12.804	1.00 44.51
ATOM	1991	CA	ASP	A	274	28.940	75.871	11.565	1.00 46.51
ATOM	1992	C	ASP	A	274	27.976	77.009	11.802	1.00 47.68
ATOM	1993	O	ASP	A	274	27.891	77.940	11.012	1.00 47.48
ATOM	1994	CB	ASP	A	274	28.509	74.985	10.376	1.00 46.35
ATOM	1995	CG	ASP	A	274	29.688	74.200	9.760	1.00 46.95
ATOM	1996	OD1	ASP	A	274	30.821	74.727	9.679	1.00 47.04
ATOM	1997	OD2	ASP	A	274	29.581	73.035	9.327	1.00 50.56
ATOM	1998	N	SER	A	275	27.314	76.966	12.947	1.00 49.96
ATOM	1999	CA	SER	A	275	26.278	77.928	13.251	1.00 51.76
ATOM	2000	C	SER	A	275	26.606	78.783	14.462	1.00 52.74
ATOM	2001	O	SER	A	275	25.736	79.040	15.279	1.00 52.56
ATOM	2002	CB	SER	A	275	24.982	77.173	13.516	1.00 52.07
ATOM	2003	OG	SER	A	275	25.106	76.433	14.709	1.00 52.67
ATOM	2004	N	LEU	A	276	27.856	79.224	14.573	1.00 54.10
ATOM	2005	CA	LEU	A	276	28.275	80.037	15.706	1.00 54.88
ATOM	2006	C	LEU	A	276	28.193	81.494	15.334	1.00 55.90
ATOM	2007	O	LEU	A	276	28.238	81.830	14.163	1.00 55.21
ATOM	2008	CB	LEU	A	276	29.721	79.723	16.110	1.00 54.72
ATOM	2009	CG	LEU	A	276	30.014	78.312	16.617	1.00 53.97
ATOM	2010	CD1	LEU	A	276	31.507	78.087	16.693	1.00 53.31
ATOM	2011	CD2	LEU	A	276	29.372	78.054	17.954	1.00 52.74
ATOM	2012	N	SER	A	277	28.107	82.344	16.351	1.00 57.26
ATOM	2013	CA	SER	A	277	28.045	83.792	16.172	1.00 58.43
ATOM	2014	C	SER	A	277	28.727	84.521	17.328	1.00 59.40
ATOM	2015	O	SER	A	277	28.709	84.065	18.476	1.00 59.33
ATOM	2016	CB	SER	A	277	26.592	84.249	16.080	1.00 58.74

ATOM	2017	OG	SER	A	277	26.380	85.378	16.898	1.00	58.81
ATOM	2018	N	SER	A	278	29.343	85.653	17.025	1.00	60.26
ATOM	2019	CA	SER	A	278	29.997	86.429	18.064	1.00	61.27
ATOM	2020	C	SER	A	278	28.981	87.052	19.033	1.00	61.57
ATOM	2021	O	SER	A	278	29.282	87.286	20.200	1.00	62.17
ATOM	2022	CB	SER	A	278	30.885	87.508	17.436	1.00	61.67
ATOM	2023	OG	SER	A	278	30.476	87.802	16.107	1.00	61.47
ATOM	2024	N	VAL	A	279	27.766	87.286	18.567	1.00	61.85
ATOM	2025	CA	VAL	A	279	26.763	87.921	19.412	1.00	62.09
ATOM	2026	C	VAL	A	279	26.070	86.953	20.337	1.00	61.70
ATOM	2027	O	VAL	A	279	25.911	87.210	21.532	1.00	61.70
ATOM	2028	CB	VAL	A	279	25.701	88.615	18.563	1.00	62.23
ATOM	2029	CG1	VAL	A	279	24.411	88.787	19.336	1.00	63.11
ATOM	2030	CG2	VAL	A	279	26.241	89.966	18.079	1.00	63.53
ATOM	2031	N	THR	A	280	25.635	85.845	19.770	1.00	61.15
ATOM	2032	CA	THR	A	280	24.894	84.869	20.531	1.00	60.92
ATOM	2033	C	THR	A	280	25.878	83.851	21.090	1.00	60.23
ATOM	2034	O	THR	A	280	26.992	83.731	20.585	1.00	59.81
ATOM	2035	CB	THR	A	280	23.799	84.253	19.625	1.00	61.10
ATOM	2036	OG1	THR	A	280	22.619	85.069	19.702	1.00	61.10
ATOM	2037	CG2	THR	A	280	23.326	82.886	20.109	1.00	61.31
ATOM	2038	N	ASN	A	281	25.480	83.163	22.160	1.00	59.15
ATOM	2039	CA	ASN	A	281	26.326	82.144	22.774	1.00	58.27
ATOM	2040	C	ASN	A	281	26.082	80.806	22.138	1.00	56.62
ATOM	2041	O	ASN	A	281	24.981	80.520	21.646	1.00	56.51
ATOM	2042	CB	ASN	A	281	26.087	82.026	24.287	1.00	58.50
ATOM	2043	CG	ASN	A	281	26.765	83.121	25.071	1.00	60.33
ATOM	2044	OD1	ASN	A	281	27.927	83.443	24.832	1.00	62.44
ATOM	2045	ND2	ASN	A	281	26.030	83.724	26.000	1.00	64.59
ATOM	2046	N	ALA	A	282	27.119	79.978	22.183	1.00	54.75
ATOM	2047	CA	ALA	A	282	27.089	78.657	21.591	1.00	53.17
ATOM	2048	C	ALA	A	282	26.007	77.776	22.194	1.00	51.89
ATOM	2049	O	ALA	A	282	25.768	77.757	23.392	1.00	51.73
ATOM	2050	CB	ALA	A	282	28.453	77.999	21.738	1.00	51.37
ATOM	2051	N	THR	A	283	25.374	77.026	21.321	1.00	50.24
ATOM	2052	CA	THR	A	283	24.312	76.134	21.668	1.00	49.16
ATOM	2053	C	THR	A	283	24.783	74.706	21.807	1.00	47.71
ATOM	2054	O	THR	A	283	24.977	74.024	20.801	1.00	48.48
ATOM	2055	CB	THR	A	283	23.342	76.147	20.524	1.00	49.07
ATOM	2056	OG1	THR	A	283	22.738	77.439	20.434	1.00	49.95
ATOM	2057	CG2	THR	A	283	22.202	75.190	20.790	1.00	50.39
ATOM	2058	N	SER	A	284	24.914	74.212	23.026	1.00	45.06
ATOM	2059	CA	SER	A	284	25.353	72.849	23.189	1.00	43.52
ATOM	2060	C	SER	A	284	24.132	71.988	23.452	1.00	42.27
ATOM	2061	O	SER	A	284	23.340	72.288	24.361	1.00	41.90
ATOM	2062	CB	SER	A	284	26.397	72.742	24.328	1.00	44.03
ATOM	2063	OG	SER	A	284	27.603	73.432	23.980	1.00	43.31
ATOM	2064	N	ILE	A	285	23.957	70.951	22.632	1.00	40.06
ATOM	2065	CA	ILE	A	285	22.898	69.982	22.833	1.00	39.55
ATOM	2066	C	ILE	A	285	23.412	68.790	23.658	1.00	39.06
ATOM	2067	O	ILE	A	285	24.395	68.138	23.293	1.00	38.89
ATOM	2068	CB	ILE	A	285	22.396	69.485	21.491	1.00	39.93
ATOM	2069	CG1	ILE	A	285	21.833	70.649	20.671	1.00	42.07
ATOM	2070	CG2	ILE	A	285	21.369	68.375	21.690	1.00	39.67
ATOM	2071	CD1	ILE	A	285	20.587	71.287	21.301	1.00	43.81
ATOM	2072	N	GLN	A	286	22.731	68.487	24.759	1.00	38.49
ATOM	2073	CA	GLN	A	286	23.139	67.398	25.621	1.00	37.01
ATOM	2074	C	GLN	A	286	22.619	66.074	25.122	1.00	36.29
ATOM	2075	O	GLN	A	286	21.493	65.957	24.700	1.00	35.16
ATOM	2076	CB	GLN	A	286	22.630	67.616	27.055	1.00	37.50
ATOM	2077	CG	GLN	A	286	23.093	66.532	28.066	1.00	35.97
ATOM	2078	CD	GLN	A	286	22.924	66.959	29.564	1.00	38.40
ATOM	2079	OE1	GLN	A	286	22.437	68.045	29.855	1.00	37.12
ATOM	2080	NE2	GLN	A	286	23.323	66.089	30.482	1.00	31.63
ATOM	2081	N	ILE	A	287	23.458	65.054	25.163	1.00	36.20
ATOM	2082	CA	ILE	A	287	22.945	63.720	24.944	1.00	35.42
ATOM	2083	C	ILE	A	287	23.014	63.082	26.304	1.00	35.21
ATOM	2084	O	ILE	A	287	24.099	62.964	26.873	1.00	35.34
ATOM	2085	CB	ILE	A	287	23.797	62.918	23.961	1.00	35.12
ATOM	2086	CG1	ILE	A	287	23.841	63.595	22.593	1.00	35.77

ATOM	2087	CG2	ILE	A	287	23.228	61.474	23.822	1.00 35.11
ATOM	2088	CD1	ILE	A	287	24.311	62.709	21.528	1.00 34.90
ATOM	2089	N	THR	A	288	21.892	62.639	26.831	1.00 34.92
ATOM	2090	CA	THR	A	288	21.922	61.970	28.127	1.00 35.17
ATOM	2091	C	THR	A	288	22.244	60.491	27.980	1.00 35.09
ATOM	2092	O	THR	A	288	22.034	59.893	26.958	1.00 33.84
ATOM	2093	CB	THR	A	288	20.582	62.139	28.836	1.00 35.05
ATOM	2094	OG1	THR	A	288	19.536	61.783	27.943	1.00 36.03
ATOM	2095	CG2	THR	A	288	20.327	63.585	29.135	1.00 36.30
ATOM	2096	N	ALA	A	289	22.748	59.902	29.040	1.00 35.95
ATOM	2097	CA	ALA	A	289	23.099	58.512	29.022	1.00 36.76
ATOM	2098	C	ALA	A	289	21.820	57.724	29.139	1.00 37.41
ATOM	2099	O	ALA	A	289	20.813	58.230	29.610	1.00 38.32
ATOM	2100	CB	ALA	A	289	24.016	58.200	30.189	1.00 36.36
ATOM	2101	N	PRO	A	290	21.862	56.485	28.687	1.00 37.99
ATOM	2102	CA	PRO	A	290	20.718	55.579	28.748	1.00 38.30
ATOM	2103	C	PRO	A	290	20.152	55.447	30.159	1.00 38.42
ATOM	2104	O	PRO	A	290	20.919	55.514	31.149	1.00 37.42
ATOM	2105	CB	PRO	A	290	21.320	54.224	28.386	1.00 38.47
ATOM	2106	CG	PRO	A	290	22.594	54.489	27.757	1.00 38.29
ATOM	2107	CD	PRO	A	290	23.028	55.879	28.045	1.00 38.09
ATOM	2108	N	ALA	A	291	18.844	55.200	30.229	1.00 37.43
ATOM	2109	CA	ALA	A	291	18.144	55.033	31.497	1.00 37.84
ATOM	2110	C	ALA	A	291	18.765	53.931	32.357	1.00 37.19
ATOM	2111	O	ALA	A	291	18.768	54.002	33.587	1.00 36.25
ATOM	2112	CB	ALA	A	291	16.661	54.713	31.231	1.00 37.87
ATOM	2113	N	SER	A	292	19.261	52.896	31.704	1.00 36.91
ATOM	2114	CA	SER	A	292	19.833	51.789	32.426	1.00 37.70
ATOM	2115	C	SER	A	292	21.222	52.115	33.015	1.00 37.65
ATOM	2116	O	SER	A	292	21.748	51.355	33.823	1.00 38.56
ATOM	2117	CB	SER	A	292	19.905	50.573	31.554	1.00 37.31
ATOM	2118	OG	SER	A	292	20.880	50.771	30.553	1.00 39.95
ATOM	2119	N	MET	A	293	21.783	53.250	32.630	1.00 37.04
ATOM	2120	CA	MET	A	293	23.026	53.714	33.210	1.00 37.24
ATOM	2121	C	MET	A	293	22.661	54.752	34.236	1.00 37.75
ATOM	2122	O	MET	A	293	23.286	54.865	35.298	1.00 37.19
ATOM	2123	CB	MET	A	293	23.936	54.325	32.142	1.00 36.55
ATOM	2124	CG	MET	A	293	24.469	53.296	31.175	1.00 34.83
ATOM	2125	SD	MET	A	293	25.771	52.417	31.979	1.00 34.30
ATOM	2126	CE	MET	A	293	25.702	50.765	31.245	1.00 36.98
ATOM	2127	N	LEU	A	294	21.591	55.469	33.937	1.00 38.01
ATOM	2128	CA	LEU	A	294	21.137	56.545	34.797	1.00 38.65
ATOM	2129	C	LEU	A	294	20.714	56.084	36.173	1.00 38.03
ATOM	2130	O	LEU	A	294	20.688	56.878	37.093	1.00 37.83
ATOM	2131	CB	LEU	A	294	20.009	57.315	34.105	1.00 39.32
ATOM	2132	CG	LEU	A	294	20.330	58.728	33.640	1.00 40.15
ATOM	2133	CD1	LEU	A	294	21.790	58.848	33.338	1.00 40.48
ATOM	2134	CD2	LEU	A	294	19.494	59.123	32.449	1.00 41.68
ATOM	2135	N	ILE	A	295	20.441	54.795	36.322	1.00 38.36
ATOM	2136	CA	ILE	A	295	20.032	54.214	37.615	1.00 39.03
ATOM	2137	C	ILE	A	295	21.062	54.413	38.743	1.00 37.93
ATOM	2138	O	ILE	A	295	20.705	54.505	39.912	1.00 37.90
ATOM	2139	CB	ILE	A	295	19.834	52.680	37.472	1.00 39.30
ATOM	2140	CG1	ILE	A	295	18.553	52.306	36.750	1.00 43.56
ATOM	2141	CG2	ILE	A	295	19.642	52.060	38.802	1.00 42.21
ATOM	2142	CD1	ILE	A	295	18.528	50.744	36.416	1.00 47.46
ATOM	2143	N	GLY	A	296	22.345	54.408	38.386	1.00 36.37
ATOM	2144	CA	GLY	A	296	23.434	54.437	39.362	1.00 35.27
ATOM	2145	C	GLY	A	296	24.692	55.134	38.825	1.00 33.95
ATOM	2146	O	GLY	A	296	24.623	55.882	37.858	1.00 33.25
ATOM	2147	N	ASP	A	297	25.820	54.936	39.498	1.00 32.12
ATOM	2148	CA	ASP	A	297	27.074	55.508	39.067	1.00 30.86
ATOM	2149	C	ASP	A	297	27.442	54.812	37.763	1.00 29.01
ATOM	2150	O	ASP	A	297	27.265	53.631	37.670	1.00 25.96
ATOM	2151	CB	ASP	A	297	28.144	55.203	40.111	1.00 31.53
ATOM	2152	CG	ASP	A	297	28.157	56.201	41.278	1.00 32.76
ATOM	2153	OD1	ASP	A	297	27.575	57.306	41.204	1.00 37.01
ATOM	2154	OD2	ASP	A	297	28.762	55.951	42.305	1.00 34.16
ATOM	2155	N	HIS	A	298	27.969	55.541	36.779	1.00 28.26
ATOM	2156	CA	HIS	A	298	28.365	54.930	35.500	1.00 28.24

ATOM	2157	C	HIS	A	298	29.514	55.729	34.923	1.00 27.63
ATOM	2158	O	HIS	A	298	29.873	56.742	35.468	1.00 28.58
ATOM	2159	CB	HIS	A	298	27.179	54.959	34.509	1.00 28.44
ATOM	2160	CG	HIS	A	298	26.509	56.293	34.465	1.00 27.81
ATOM	2161	ND1	HIS	A	298	26.917	57.296	33.617	1.00 24.43
ATOM	2162	CD2	HIS	A	298	25.492	56.805	35.197	1.00 25.10
ATOM	2163	CE1	HIS	A	298	26.214	58.387	33.858	1.00 25.84
ATOM	2164	NE2	HIS	A	298	25.318	58.108	34.792	1.00 26.84
ATOM	2165	N	TYR	A	299	30.090	55.266	33.825	1.00 27.33
ATOM	2166	CA	TYR	A	299	31.157	55.984	33.129	1.00 27.46
ATOM	2167	C	TYR	A	299	30.819	56.134	31.652	1.00 28.16
ATOM	2168	O	TYR	A	299	30.091	55.308	31.084	1.00 28.79
ATOM	2169	CB	TYR	A	299	32.469	55.170	33.160	1.00 27.18
ATOM	2170	CG	TYR	A	299	32.962	54.739	34.517	1.00 24.61
ATOM	2171	CD1	TYR	A	299	33.572	55.650	35.393	1.00 25.18
ATOM	2172	CD2	TYR	A	299	32.903	53.429	34.892	1.00 21.82
ATOM	2173	CE1	TYR	A	299	34.021	55.260	36.626	1.00 23.54
ATOM	2174	CE2	TYR	A	299	33.373	53.024	36.140	1.00 27.88
ATOM	2175	CZ	TYR	A	299	33.915	53.950	37.006	1.00 23.90
ATOM	2176	OH	TYR	A	299	34.396	53.530	38.227	1.00 25.14
ATOM	2177	N	LEU	A	300	31.344	57.185	31.037	1.00 28.85
ATOM	2178	CA	LEU	A	300	31.366	57.304	29.588	1.00 29.34
ATOM	2179	C	LEU	A	300	32.715	56.697	29.201	1.00 29.69
ATOM	2180	O	LEU	A	300	33.744	57.252	29.571	1.00 30.77
ATOM	2181	CB	LEU	A	300	31.334	58.764	29.170	1.00 29.67
ATOM	2182	CG	LEU	A	300	31.261	59.019	27.651	1.00 30.84
ATOM	2183	CD1	LEU	A	300	31.833	60.334	27.339	1.00 30.08
ATOM	2184	CD2	LEU	A	300	32.026	58.008	26.912	1.00 34.39
ATOM	2185	N	CYS	A	301	32.726	55.595	28.458	1.00 30.05
ATOM	2186	CA	CYS	A	301	33.965	54.803	28.252	1.00 29.99
ATOM	2187	C	CYS	A	301	34.539	55.003	26.783	1.00 32.42
ATOM	2188	O	CYS	A	301	35.767	54.889	26.564	1.00 32.99
ATOM	2189	CB	CYS	A	301	33.772	53.270	28.856	1.00 30.22
ATOM	2190	SG	CYS	A	301	34.468	52.763	30.633	1.00 21.35
ATOM	2191	N	ASP	A	302	33.720	55.415	25.797	1.00 33.24
ATOM	2192	CA	ASP	A	302	34.165	55.509	24.374	1.00 34.53
ATOM	2193	C	ASP	A	302	33.171	56.299	23.480	1.00 33.63
ATOM	2194	O	ASP	A	302	31.954	56.160	23.599	1.00 33.45
ATOM	2195	CB	ASP	A	302	34.333	54.106	23.777	1.00 36.11
ATOM	2196	CG	ASP	A	302	34.995	54.115	22.399	1.00 39.99
ATOM	2197	OD1	ASP	A	302	36.254	54.027	22.318	1.00 48.32
ATOM	2198	OD2	ASP	A	302	34.356	54.180	21.330	1.00 46.68
ATOM	2199	N	VAL	A	303	33.704	57.144	22.617	1.00 31.84
ATOM	2200	CA	VAL	A	303	32.921	58.030	21.783	1.00 31.33
ATOM	2201	C	VAL	A	303	33.383	57.807	20.355	1.00 31.55
ATOM	2202	O	VAL	A	303	34.568	57.929	20.070	1.00 29.81
ATOM	2203	CB	VAL	A	303	33.142	59.517	22.167	1.00 30.97
ATOM	2204	CG1	VAL	A	303	32.554	60.471	21.124	1.00 31.12
ATOM	2205	CG2	VAL	A	303	32.535	59.826	23.528	1.00 31.39
ATOM	2206	N	THR	A	304	32.473	57.467	19.454	1.00 30.98
ATOM	2207	CA	THR	A	304	32.922	57.241	18.060	1.00 32.60
ATOM	2208	C	THR	A	304	31.983	57.831	17.012	1.00 32.56
ATOM	2209	O	THR	A	304	30.812	57.481	16.980	1.00 32.98
ATOM	2210	CB	THR	A	304	33.073	55.765	17.793	1.00 32.09
ATOM	2211	OG1	THR	A	304	34.098	55.200	18.636	1.00 36.13
ATOM	2212	CG2	THR	A	304	33.582	55.526	16.426	1.00 32.81
ATOM	2213	N	TRP	A	305	32.472	58.715	16.152	1.00 32.85
ATOM	2214	CA	TRP	A	305	31.617	59.188	15.062	1.00 33.54
ATOM	2215	C	TRP	A	305	31.488	58.066	13.993	1.00 33.99
ATOM	2216	O	TRP	A	305	32.489	57.644	13.436	1.00 35.39
ATOM	2217	CB	TRP	A	305	32.168	60.471	14.449	1.00 33.79
ATOM	2218	CG	TRP	A	305	31.974	61.622	15.291	1.00 33.47
ATOM	2219	CD1	TRP	A	305	32.839	62.105	16.213	1.00 32.15
ATOM	2220	CD2	TRP	A	305	30.814	62.454	15.353	1.00 33.18
ATOM	2221	NE1	TRP	A	305	32.297	63.195	16.830	1.00 31.30
ATOM	2222	CE2	TRP	A	305	31.051	63.427	16.326	1.00 31.04
ATOM	2223	CE3	TRP	A	305	29.612	62.491	14.660	1.00 32.12
ATOM	2224	CZ2	TRP	A	305	30.128	64.404	16.643	1.00 32.78
ATOM	2225	CZ3	TRP	A	305	28.706	63.458	14.973	1.00 35.35
ATOM	2226	CH2	TRP	A	305	28.956	64.399	15.960	1.00 33.19

ATOM	2227	N	ALA	A	306	30.276	57.572	13.753	1.00	33.77
ATOM	2228	CA	ALA	A	306	30.031	56.545	12.756	1.00	33.97
ATOM	2229	C	ALA	A	306	29.846	57.188	11.412	1.00	34.54
ATOM	2230	O	ALA	A	306	30.404	56.726	10.437	1.00	35.03
ATOM	2231	CB	ALA	A	306	28.815	55.731	13.085	1.00	34.43
ATOM	2232	N	THR	A	307	29.059	58.244	11.342	1.00	34.83
ATOM	2233	CA	THR	A	307	28.962	58.998	10.104	1.00	35.28
ATOM	2234	C	THR	A	307	28.993	60.468	10.442	1.00	36.71
ATOM	2235	O	THR	A	307	29.299	60.835	11.579	1.00	38.20
ATOM	2236	CB	THR	A	307	27.666	58.689	9.381	1.00	35.21
ATOM	2237	OG1	THR	A	307	26.562	59.189	10.150	1.00	31.75
ATOM	2238	CG2	THR	A	307	27.441	57.184	9.275	1.00	34.16
ATOM	2239	N	GLN	A	308	28.675	61.303	9.456	1.00	36.94
ATOM	2240	CA	GLN	A	308	28.595	62.746	9.610	1.00	36.92
ATOM	2241	C	GLN	A	308	27.472	63.119	10.560	1.00	37.03
ATOM	2242	O	GLN	A	308	27.420	64.244	11.084	1.00	37.35
ATOM	2243	CB	GLN	A	308	28.337	63.443	8.245	1.00	37.54
ATOM	2244	CG	GLN	A	308	29.417	63.194	7.140	1.00	38.17
ATOM	2245	CD	GLN	A	308	30.813	63.689	7.546	1.00	42.65
ATOM	2246	OE1	GLN	A	308	30.954	64.550	8.441	1.00	43.08
ATOM	2247	NE2	GLN	A	308	31.850	63.123	6.918	1.00	40.49
ATOM	2248	N	GLU	A	309	26.567	62.183	10.805	1.00	36.71
ATOM	2249	CA	GLU	A	309	25.377	62.488	11.575	1.00	35.50
ATOM	2250	C	GLU	A	309	25.050	61.421	12.602	1.00	34.91
ATOM	2251	O	GLU	A	309	23.963	61.416	13.167	1.00	35.07
ATOM	2252	CB	GLU	A	309	24.191	62.676	10.594	1.00	36.50
ATOM	2253	CG	GLU	A	309	24.558	63.640	9.472	1.00	36.43
ATOM	2254	CD	GLU	A	309	23.413	64.366	8.766	1.00	39.46
ATOM	2255	OE1	GLU	A	309	22.199	64.156	9.081	1.00	34.63
ATOM	2256	OE2	GLU	A	309	23.785	65.180	7.854	1.00	39.80
ATOM	2257	N	ARG	A	310	25.974	60.508	12.858	1.00	33.71
ATOM	2258	CA	ARG	A	310	25.690	59.428	13.769	1.00	33.41
ATOM	2259	C	ARG	A	310	26.826	59.287	14.765	1.00	33.15
ATOM	2260	O	ARG	A	310	27.982	59.203	14.356	1.00	32.29
ATOM	2261	CB	ARG	A	310	25.538	58.154	12.972	1.00	33.68
ATOM	2262	CG	ARG	A	310	25.274	56.893	13.777	1.00	36.39
ATOM	2263	CD	ARG	A	310	24.660	55.779	12.922	1.00	39.54
ATOM	2264	NE	ARG	A	310	23.250	55.583	13.231	1.00	43.09
ATOM	2265	CZ	ARG	A	310	22.353	55.034	12.434	1.00	46.21
ATOM	2266	NH1	ARG	A	310	22.686	54.636	11.224	1.00	48.82
ATOM	2267	NH2	ARG	A	310	21.089	54.925	12.845	1.00	47.65
ATOM	2268	N	ILE	A	311	26.494	59.243	16.055	1.00	33.31
ATOM	2269	CA	ILE	A	311	27.511	59.117	17.115	1.00	34.40
ATOM	2270	C	ILE	A	311	27.264	57.868	17.923	1.00	33.36
ATOM	2271	O	ILE	A	311	26.146	57.573	18.313	1.00	33.46
ATOM	2272	CB	ILE	A	311	27.532	60.338	18.101	1.00	34.77
ATOM	2273	CG1	ILE	A	311	27.489	61.662	17.375	1.00	37.84
ATOM	2274	CG2	ILE	A	311	28.825	60.388	18.907	1.00	36.40
ATOM	2275	CD1	ILE	A	311	26.952	62.833	18.302	1.00	39.22
ATOM	2276	N	SER	A	312	28.327	57.140	18.197	1.00	32.30
ATOM	2277	CA	SER	A	312	28.213	55.957	19.042	1.00	32.09
ATOM	2278	C	SER	A	312	28.804	56.335	20.395	1.00	31.13
ATOM	2279	O	SER	A	312	29.871	56.919	20.425	1.00	30.12
ATOM	2280	CB	SER	A	312	29.020	54.844	18.416	1.00	32.17
ATOM	2281	OG	SER	A	312	28.961	53.709	19.195	1.00	32.79
ATOM	2282	N	LEU	A	313	28.095	56.053	21.485	1.00	30.37
ATOM	2283	CA	LEU	A	313	28.612	56.297	22.837	1.00	31.25
ATOM	2284	C	LEU	A	313	28.550	55.006	23.623	1.00	30.83
ATOM	2285	O	LEU	A	313	27.451	54.441	23.718	1.00	31.63
ATOM	2286	CB	LEU	A	313	27.777	57.335	23.584	1.00	30.44
ATOM	2287	CG	LEU	A	313	27.584	58.683	22.918	1.00	32.85
ATOM	2288	CD1	LEU	A	313	26.682	59.541	23.773	1.00	32.34
ATOM	2289	CD2	LEU	A	313	28.908	59.377	22.685	1.00	34.95
ATOM	2290	N	GLN	A	314	29.686	54.520	24.148	1.00	30.07
ATOM	2291	CA	GLN	A	314	29.689	53.350	25.021	1.00	30.67
ATOM	2292	C	GLN	A	314	29.751	53.818	26.476	1.00	28.79
ATOM	2293	O	GLN	A	314	30.629	54.604	26.841	1.00	28.37
ATOM	2294	CB	GLN	A	314	30.871	52.388	24.791	1.00	31.25
ATOM	2295	CG	GLN	A	314	30.608	51.259	23.849	1.00	37.45
ATOM	2296	CD	GLN	A	314	31.550	50.026	24.008	1.00	39.54

ATOM	2297	OE1	GLN	A	314	31.070	48.894	24.133	1.00 40.38
ATOM	2298	NE2	GLN	A	314	32.862	50.247	23.920	1.00 40.87
ATOM	2299	N	TRP	A	315	28.880	53.258	27.298	1.00 28.07
ATOM	2300	CA	TRP	A	315	28.799	53.572	28.714	1.00 27.91
ATOM	2301	C	TRP	A	315	28.931	52.310	29.508	1.00 27.90
ATOM	2302	O	TRP	A	315	28.627	51.256	28.997	1.00 26.86
ATOM	2303	CB	TRP	A	315	27.465	54.183	29.098	1.00 27.41
ATOM	2304	CG	TRP	A	315	27.037	55.330	28.340	1.00 27.24
ATOM	2305	CD1	TRP	A	315	26.389	55.330	27.128	1.00 28.62
ATOM	2306	CD2	TRP	A	315	27.125	56.681	28.737	1.00 27.34
ATOM	2307	NE1	TRP	A	315	26.091	56.609	26.753	1.00 25.10
ATOM	2308	CE2	TRP	A	315	26.530	57.457	27.729	1.00 25.13
ATOM	2309	CE3	TRP	A	315	27.656	57.332	29.853	1.00 26.34
ATOM	2310	CZ2	TRP	A	315	26.487	58.815	27.790	1.00 26.49
ATOM	2311	CZ3	TRP	A	315	27.591	58.674	29.915	1.00 24.80
ATOM	2312	CH2	TRP	A	315	27.019	59.408	28.896	1.00 26.78
ATOM	2313	N	LEU	A	316	29.341	52.436	30.786	1.00 27.28
ATOM	2314	CA	LEU	A	316	29.622	51.274	31.623	1.00 27.37
ATOM	2315	C	LEU	A	316	29.134	51.583	33.017	1.00 26.51
ATOM	2316	O	LEU	A	316	29.402	52.667	33.511	1.00 24.17
ATOM	2317	CB	LEU	A	316	31.138	51.125	31.756	1.00 27.59
ATOM	2318	CG	LEU	A	316	31.977	49.849	31.837	1.00 29.63
ATOM	2319	CD1	LEU	A	316	33.388	50.130	32.427	1.00 27.30
ATOM	2320	CD2	LEU	A	316	31.328	48.722	32.500	1.00 30.98
ATOM	2321	N	ARG	A	317	28.488	50.623	33.651	1.00 26.17
ATOM	2322	CA	ARG	A	317	28.050	50.814	35.007	1.00 29.17
ATOM	2323	C	ARG	A	317	29.274	50.717	35.931	1.00 29.53
ATOM	2324	O	ARG	A	317	30.220	50.025	35.624	1.00 30.93
ATOM	2325	CB	ARG	A	317	27.082	49.738	35.393	1.00 28.87
ATOM	2326	CG	ARG	A	317	25.693	49.932	34.913	1.00 31.02
ATOM	2327	CD	ARG	A	317	24.699	48.952	35.588	1.00 33.50
ATOM	2328	NE	ARG	A	317	23.383	49.133	35.025	1.00 38.70
ATOM	2329	CZ	ARG	A	317	22.459	48.190	34.950	1.00 41.63
ATOM	2330	NH1	ARG	A	317	22.688	46.961	35.416	1.00 40.89
ATOM	2331	NH2	ARG	A	317	21.299	48.482	34.390	1.00 41.58
ATOM	2332	N	ARG	A	318	29.267	51.436	37.028	1.00 30.66
ATOM	2333	CA	ARG	A	318	30.347	51.342	38.009	1.00 31.11
ATOM	2334	C	ARG	A	318	30.624	49.893	38.414	1.00 31.80
ATOM	2335	O	ARG	A	318	31.767	49.506	38.617	1.00 31.07
ATOM	2336	CB	ARG	A	318	30.023	52.190	39.224	1.00 31.69
ATOM	2337	CG	ARG	A	318	31.204	52.357	40.138	1.00 29.53
ATOM	2338	CD	ARG	A	318	31.040	53.395	41.175	1.00 29.39
ATOM	2339	NE	ARG	A	318	32.171	53.368	42.092	1.00 29.21
ATOM	2340	CZ	ARG	A	318	32.517	54.357	42.906	1.00 30.35
ATOM	2341	NH1	ARG	A	318	31.801	55.464	42.957	1.00 28.27
ATOM	2342	NH2	ARG	A	318	33.596	54.228	43.686	1.00 30.41
ATOM	2343	N	ILE	A	319	29.589	49.085	38.566	1.00 33.43
ATOM	2344	CA	ILE	A	319	29.831	47.650	38.626	1.00 34.95
ATOM	2345	C	ILE	A	319	30.090	47.290	37.171	1.00 35.08
ATOM	2346	O	ILE	A	319	29.178	47.125	36.365	1.00 34.25
ATOM	2347	CB	ILE	A	319	28.662	46.854	39.188	1.00 35.85
ATOM	2348	CG1	ILE	A	319	28.281	47.352	40.575	1.00 40.14
ATOM	2349	CG2	ILE	A	319	29.108	45.402	39.371	1.00 38.30
ATOM	2350	CD1	ILE	A	319	27.121	46.470	41.213	1.00 44.56
ATOM	2351	N	GLN	A	320	31.357	47.171	36.829	1.00 35.11
ATOM	2352	CA	GLN	A	320	31.736	47.069	35.452	1.00 35.60
ATOM	2353	C	GLN	A	320	31.364	45.712	34.795	1.00 36.40
ATOM	2354	O	GLN	A	320	32.186	45.096	34.097	1.00 35.91
ATOM	2355	CB	GLN	A	320	33.207	47.403	35.386	1.00 35.70
ATOM	2356	CG	GLN	A	320	33.477	48.794	35.908	1.00 34.45
ATOM	2357	CD	GLN	A	320	34.925	49.180	35.785	1.00 34.19
ATOM	2358	OE1	GLN	A	320	35.591	48.778	34.839	1.00 33.00
ATOM	2359	NE2	GLN	A	320	35.415	49.990	36.727	1.00 30.75
ATOM	2360	N	ASN	A	321	30.103	45.303	35.020	1.00 36.78
ATOM	2361	CA	ASN	A	321	29.532	44.058	34.497	1.00 37.33
ATOM	2362	C	ASN	A	321	28.406	44.271	33.469	1.00 36.63
ATOM	2363	O	ASN	A	321	27.810	43.295	33.003	1.00 36.78
ATOM	2364	CB	ASN	A	321	28.996	43.127	35.629	1.00 37.05
ATOM	2365	CG	ASN	A	321	27.778	43.677	36.385	1.00 40.00
ATOM	2366	OD1	ASN	A	321	27.238	44.766	36.135	1.00 43.74

ATOM	2367	ND2	ASN	A	321	27.341	42.891	37.361	1.00 46.51
ATOM	2368	N	TYR	A	322	28.133	45.528	33.125	1.00 35.10
ATOM	2369	CA	TYR	A	322	27.088	45.850	32.197	1.00 34.16
ATOM	2370	C	TYR	A	322	27.468	47.149	31.455	1.00 33.35
ATOM	2371	O	TYR	A	322	27.757	48.162	32.086	1.00 32.02
ATOM	2372	CB	TYR	A	322	25.785	45.988	33.007	1.00 33.91
ATOM	2373	CG	TYR	A	322	24.508	46.086	32.191	1.00 35.53
ATOM	2374	CD1	TYR	A	322	24.048	47.306	31.748	1.00 34.64
ATOM	2375	CD2	TYR	A	322	23.745	44.956	31.906	1.00 36.13
ATOM	2376	CE1	TYR	A	322	22.907	47.406	31.082	1.00 35.86
ATOM	2377	CE2	TYR	A	322	22.593	45.057	31.236	1.00 35.40
ATOM	2378	CZ	TYR	A	322	22.179	46.282	30.804	1.00 37.49
ATOM	2379	OH	TYR	A	322	21.008	46.425	30.078	1.00 41.58
ATOM	2380	N	SER	A	323	27.517	47.104	30.126	1.00 32.85
ATOM	2381	CA	SER	A	323	27.810	48.283	29.315	1.00 32.99
ATOM	2382	C	SER	A	323	26.816	48.444	28.215	1.00 32.86
ATOM	2383	O	SER	A	323	26.299	47.487	27.690	1.00 32.06
ATOM	2384	CB	SER	A	323	29.175	48.177	28.647	1.00 33.46
ATOM	2385	OG	SER	A	323	29.331	46.915	28.052	1.00 35.41
ATOM	2386	N	VAL	A	324	26.584	49.673	27.822	1.00 33.68
ATOM	2387	CA	VAL	A	324	25.597	49.916	26.828	1.00 34.23
ATOM	2388	C	VAL	A	324	26.176	50.801	25.759	1.00 34.59
ATOM	2389	O	VAL	A	324	26.716	51.870	26.050	1.00 34.10
ATOM	2390	CB	VAL	A	324	24.380	50.610	27.434	1.00 34.28
ATOM	2391	CG1	VAL	A	324	23.463	51.091	26.331	1.00 35.67
ATOM	2392	CG2	VAL	A	324	23.605	49.672	28.402	1.00 34.51
ATOM	2393	N	MET	A	325	26.021	50.353	24.519	1.00 35.21
ATOM	2394	CA	MET	A	325	26.384	51.140	23.367	1.00 36.29
ATOM	2395	C	MET	A	325	25.102	51.785	22.865	1.00 36.58
ATOM	2396	O	MET	A	325	24.146	51.079	22.504	1.00 36.39
ATOM	2397	CB	MET	A	325	26.995	50.268	22.262	1.00 36.35
ATOM	2398	CG	MET	A	325	28.170	50.923	21.505	1.00 38.37
ATOM	2399	SD	MET	A	325	28.923	49.807	20.259	1.00 42.06
ATOM	2400	CE	MET	A	325	27.992	50.257	18.898	1.00 36.19
ATOM	2401	N	ASP	A	326	25.095	53.119	22.875	1.00 36.53
ATOM	2402	CA	ASP	A	326	24.010	53.917	22.341	1.00 36.73
ATOM	2403	C	ASP	A	326	24.376	54.427	20.980	1.00 36.99
ATOM	2404	O	ASP	A	326	25.490	54.847	20.759	1.00 37.13
ATOM	2405	CB	ASP	A	326	23.785	55.118	23.215	1.00 37.30
ATOM	2406	CG	ASP	A	326	22.371	55.262	23.618	1.00 39.85
ATOM	2407	OD1	ASP	A	326	21.773	54.229	23.962	1.00 41.00
ATOM	2408	OD2	ASP	A	326	21.762	56.357	23.611	1.00 44.95
ATOM	2409	N	ILE	A	327	23.433	54.411	20.052	1.00 37.51
ATOM	2410	CA	ILE	A	327	23.671	54.939	18.732	1.00 38.16
ATOM	2411	C	ILE	A	327	22.793	56.160	18.535	1.00 38.52
ATOM	2412	O	ILE	A	327	21.605	56.040	18.493	1.00 38.42
ATOM	2413	CB	ILE	A	327	23.373	53.832	17.703	1.00 38.43
ATOM	2414	CG1	ILE	A	327	24.494	52.804	17.757	1.00 39.97
ATOM	2415	CG2	ILE	A	327	23.305	54.383	16.298	1.00 37.48
ATOM	2416	CD1	ILE	A	327	24.109	51.511	17.098	1.00 43.71
ATOM	2417	N	CYS	A	328	23.387	57.326	18.340	1.00 39.37
ATOM	2418	CA	CYS	A	328	22.631	58.571	18.312	1.00 39.97
ATOM	2419	C	CYS	A	328	22.714	59.309	16.993	1.00 40.41
ATOM	2420	O	CYS	A	328	23.804	59.495	16.454	1.00 39.69
ATOM	2421	CB	CYS	A	328	23.174	59.487	19.406	1.00 40.48
ATOM	2422	SG	CYS	A	328	23.240	58.708	21.027	1.00 42.44
ATOM	2423	N	ASP	A	329	21.563	59.793	16.517	1.00 40.89
ATOM	2424	CA	ASP	A	329	21.473	60.435	15.213	1.00 41.39
ATOM	2425	C	ASP	A	329	20.974	61.877	15.270	1.00 41.92
ATOM	2426	O	ASP	A	329	20.119	62.198	16.058	1.00 40.55
ATOM	2427	CB	ASP	A	329	20.520	59.611	14.334	1.00 41.65
ATOM	2428	CG	ASP	A	329	21.078	58.250	13.997	1.00 42.09
ATOM	2429	OD1	ASP	A	329	22.316	58.073	13.960	1.00 42.62
ATOM	2430	OD2	ASP	A	329	20.361	57.295	13.707	1.00 45.91
ATOM	2431	N	TYR	A	330	21.539	62.732	14.425	1.00 43.37
ATOM	2432	CA	TYR	A	330	21.146	64.118	14.330	1.00 45.55
ATOM	2433	C	TYR	A	330	19.844	64.297	13.567	1.00 47.23
ATOM	2434	O	TYR	A	330	19.696	63.790	12.479	1.00 46.53
ATOM	2435	CB	TYR	A	330	22.215	64.872	13.563	1.00 45.86
ATOM	2436	CG	TYR	A	330	21.989	66.358	13.397	1.00 46.44

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ATOM  2437  CD1 TYR A 330      21.957  67.204  14.488  1.00 47.55
ATOM  2438  CD2 TYR A 330      21.851  66.924  12.143  1.00 48.93
ATOM  2439  CE1 TYR A 330      21.776  68.566  14.330  1.00 47.61
ATOM  2440  CE2 TYR A 330      21.671  68.295  11.983  1.00 47.43
ATOM  2441  CZ  TYR A 330      21.645  69.100  13.080  1.00 47.48
ATOM  2442  OH  TYR A 330      21.491  70.454  12.931  1.00 49.37
ATOM  2443  N   ASP A 331      18.906  65.025  14.146  1.00 50.39
ATOM  2444  CA  ASP A 331      17.643  65.331  13.482  1.00 52.45
ATOM  2445  C   ASP A 331      17.730  66.709  12.850  1.00 54.21
ATOM  2446  O   ASP A 331      17.660  67.719  13.541  1.00 53.88
ATOM  2447  CB  ASP A 331      16.516  65.328  14.492  1.00 52.85
ATOM  2448  CG  ASP A 331      15.175  65.672  13.863  1.00 53.55
ATOM  2449  OD1 ASP A 331      15.157  66.349  12.798  1.00 55.91
ATOM  2450  OD2 ASP A 331      14.103  65.314  14.385  1.00 51.08
ATOM  2451  N   GLU A 332      17.851  66.743  11.528  1.00 56.40
ATOM  2452  CA  GLU A 332      18.076  67.986  10.804  1.00 58.14
ATOM  2453  C   GLU A 332      17.075  69.081  11.142  1.00 58.88
ATOM  2454  O   GLU A 332      17.434  70.247  11.216  1.00 59.23
ATOM  2455  CB  GLU A 332      18.019  67.716   9.308  1.00 58.97
ATOM  2456  CG  GLU A 332      18.910  68.617   8.460  1.00 61.14
ATOM  2457  CD  GLU A 332      18.759  68.313   6.972  1.00 64.90
ATOM  2458  OE1 GLU A 332      18.225  67.222   6.643  1.00 66.07
ATOM  2459  OE2 GLU A 332      19.156  69.164   6.132  1.00 66.87
ATOM  2460  N   SER A 333      15.813  68.722  11.323  1.00 59.70
ATOM  2461  CA  SER A 333      14.809  69.746  11.558  1.00 60.31
ATOM  2462  C   SER A 333      14.873  70.137  13.026  1.00 60.35
ATOM  2463  O   SER A 333      15.106  71.291  13.356  1.00 60.53
ATOM  2464  CB  SER A 333      13.410  69.256  11.160  1.00 60.41
ATOM  2465  OG  SER A 333      12.753  68.607  12.238  1.00 61.18
ATOM  2466  N   SER A 334      14.721  69.149  13.894  1.00 60.21
ATOM  2467  CA  SER A 334      14.773  69.363  15.330  1.00 60.35
ATOM  2468  C   SER A 334      16.047  70.059  15.751  1.00 59.88
ATOM  2469  O   SER A 334      16.044  70.869  16.662  1.00 60.48
ATOM  2470  CB  SER A 334      14.699  68.013  16.035  1.00 60.48
ATOM  2471  OG  SER A 334      14.620  68.147  17.435  1.00 61.75
ATOM  2472  N   GLY A 335      17.141  69.740  15.074  1.00 59.42
ATOM  2473  CA  GLY A 335      18.452  70.221  15.452  1.00 58.81
ATOM  2474  C   GLY A 335      19.000  69.388  16.602  1.00 58.03
ATOM  2475  O   GLY A 335      20.082  69.665  17.119  1.00 58.62
ATOM  2476  N   ARG A 336      18.267  68.349  16.991  1.00 57.08
ATOM  2477  CA  ARG A 336      18.621  67.551  18.169  1.00 56.39
ATOM  2478  C   ARG A 336      19.324  66.225  17.858  1.00 54.43
ATOM  2479  O   ARG A 336      19.731  65.982  16.721  1.00 53.58
ATOM  2480  CB  ARG A 336      17.360  67.309  19.006  1.00 57.25
ATOM  2481  CG  ARG A 336      16.756  68.602  19.551  1.00 59.72
ATOM  2482  CD  ARG A 336      15.922  68.451  20.822  1.00 63.58
ATOM  2483  NE  ARG A 336      15.666  69.766  21.422  1.00 66.15
ATOM  2484  CZ  ARG A 336      16.409  70.339  22.375  1.00 68.29
ATOM  2485  NH1 ARG A 336      17.474  69.728  22.900  1.00 66.97
ATOM  2486  NH2 ARG A 336      16.068  71.542  22.816  1.00 69.67
ATOM  2487  N   TRP A 337      19.498  65.396  18.891  1.00 52.10
ATOM  2488  CA  TRP A 337      20.141  64.088  18.749  1.00 50.39
ATOM  2489  C   TRP A 337      19.307  63.065  19.457  1.00 50.29
ATOM  2490  O   TRP A 337      18.958  63.240  20.617  1.00 50.80
ATOM  2491  CB  TRP A 337      21.549  64.062  19.358  1.00 49.01
ATOM  2492  CG  TRP A 337      22.502  64.856  18.613  1.00 43.93
ATOM  2493  CD1 TRP A 337      22.748  66.176  18.766  1.00 41.17
ATOM  2494  CD2 TRP A 337      23.372  64.403  17.582  1.00 38.95
ATOM  2495  NE1 TRP A 337      23.704  66.586  17.874  1.00 38.20
ATOM  2496  CE2 TRP A 337      24.103  65.510  17.135  1.00 37.28
ATOM  2497  CE3 TRP A 337      23.565  63.182  16.945  1.00 36.08
ATOM  2498  CZ2 TRP A 337      25.012  65.429  16.112  1.00 36.93
ATOM  2499  CZ3 TRP A 337      24.475  63.106  15.948  1.00 35.12
ATOM  2500  CH2 TRP A 337      25.192  64.215  15.539  1.00 35.09
ATOM  2501  N   ASN A 338      19.013  61.974  18.777  1.00 50.08
ATOM  2502  CA  ASN A 338      18.151  60.966  19.360  1.00 50.17
ATOM  2503  C   ASN A 338      18.782  59.601  19.364  1.00 49.12
ATOM  2504  O   ASN A 338      19.398  59.184  18.387  1.00 49.10
ATOM  2505  CB  ASN A 338      16.798  60.955  18.644  1.00 50.84
ATOM  2506  CG  ASN A 338      15.967  62.160  19.000  1.00 52.32
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ATOM	2507	OD1	ASN	A	338	15.284	62.170	20.028	1.00	56.68
ATOM	2508	ND2	ASN	A	338	16.045	63.201	18.179	1.00	53.70
ATOM	2509	N	CYS	A	339	18.623	58.912	20.476	1.00	48.04
ATOM	2510	CA	CYS	A	339	19.275	57.646	20.656	1.00	48.30
ATOM	2511	C	CYS	A	339	18.170	56.619	20.904	1.00	49.07
ATOM	2512	O	CYS	A	339	17.597	56.548	21.980	1.00	48.71
ATOM	2513	CB	CYS	A	339	20.288	57.722	21.818	1.00	47.82
ATOM	2514	SG	CYS	A	339	21.401	59.178	21.776	1.00	45.14
ATOM	2515	N	LEU	A	340	17.901	55.818	19.887	1.00	49.54
ATOM	2516	CA	LEU	A	340	16.809	54.885	19.929	1.00	50.67
ATOM	2517	C	LEU	A	340	17.090	53.745	20.865	1.00	50.43
ATOM	2518	O	LEU	A	340	17.987	52.965	20.633	1.00	50.01
ATOM	2519	CB	LEU	A	340	16.528	54.366	18.521	1.00	50.91
ATOM	2520	CG	LEU	A	340	15.056	54.371	18.159	1.00	52.84
ATOM	2521	CD1	LEU	A	340	14.381	55.656	18.678	1.00	53.31
ATOM	2522	CD2	LEU	A	340	14.893	54.230	16.644	1.00	52.52
ATOM	2523	N	VAL	A	341	16.275	53.620	21.904	1.00	51.21
ATOM	2524	CA	VAL	A	341	16.533	52.631	22.944	1.00	51.79
ATOM	2525	C	VAL	A	341	16.639	51.283	22.296	1.00	52.02
ATOM	2526	O	VAL	A	341	17.201	50.365	22.881	1.00	51.85
ATOM	2527	CB	VAL	A	341	15.446	52.638	24.097	1.00	52.37
ATOM	2528	CG1	VAL	A	341	16.020	52.121	25.412	1.00	52.37
ATOM	2529	CG2	VAL	A	341	14.913	54.043	24.351	1.00	53.02
ATOM	2530	N	ALA	A	342	16.155	51.182	21.055	1.00	52.45
ATOM	2531	CA	ALA	A	342	16.142	49.910	20.326	1.00	52.38
ATOM	2532	C	ALA	A	342	17.364	49.561	19.496	1.00	52.19
ATOM	2533	O	ALA	A	342	17.554	48.368	19.164	1.00	53.38
ATOM	2534	CB	ALA	A	342	14.890	49.817	19.452	1.00	53.05
ATOM	2535	N	ARG	A	343	18.184	50.517	19.055	1.00	50.99
ATOM	2536	CA	ARG	A	343	19.453	50.013	18.508	1.00	49.82
ATOM	2537	C	ARG	A	343	20.516	49.891	19.622	1.00	47.74
ATOM	2538	O	ARG	A	343	21.673	49.616	19.353	1.00	47.28
ATOM	2539	CB	ARG	A	343	19.980	50.735	17.255	1.00	49.82
ATOM	2540	CG	ARG	A	343	20.200	52.183	17.356	1.00	50.27
ATOM	2541	CD	ARG	A	343	19.170	52.981	16.676	1.00	51.54
ATOM	2542	NE	ARG	A	343	19.158	52.772	15.245	1.00	51.73
ATOM	2543	CZ	ARG	A	343	18.601	53.611	14.391	1.00	51.85
ATOM	2544	NH1	ARG	A	343	18.023	54.705	14.840	1.00	48.59
ATOM	2545	NH2	ARG	A	343	18.637	53.363	13.086	1.00	54.27
ATOM	2546	N	GLN	A	344	20.114	50.055	20.875	1.00	46.47
ATOM	2547	CA	GLN	A	344	21.075	49.932	21.967	1.00	44.89
ATOM	2548	C	GLN	A	344	21.723	48.582	21.927	1.00	44.26
ATOM	2549	O	GLN	A	344	21.055	47.590	21.800	1.00	43.75
ATOM	2550	CB	GLN	A	344	20.408	50.082	23.318	1.00	44.84
ATOM	2551	CG	GLN	A	344	20.271	51.483	23.815	1.00	43.22
ATOM	2552	CD	GLN	A	344	19.672	51.530	25.190	1.00	44.80
ATOM	2553	OE1	GLN	A	344	19.569	50.492	25.868	1.00	42.35
ATOM	2554	NE2	GLN	A	344	19.263	52.732	25.619	1.00	43.12
ATOM	2555	N	HIS	A	345	23.036	48.526	21.989	1.00	43.91
ATOM	2556	CA	HIS	A	345	23.655	47.223	22.119	1.00	44.32
ATOM	2557	C	HIS	A	345	24.208	47.031	23.533	1.00	43.74
ATOM	2558	O	HIS	A	345	24.812	47.927	24.104	1.00	43.43
ATOM	2559	CB	HIS	A	345	24.701	47.022	21.049	1.00	44.71
ATOM	2560	CG	HIS	A	345	24.118	46.552	19.758	1.00	46.48
ATOM	2561	ND1	HIS	A	345	23.849	47.406	18.709	1.00	50.06
ATOM	2562	CD2	HIS	A	345	23.717	45.321	19.359	1.00	47.51
ATOM	2563	CE1	HIS	A	345	23.335	46.714	17.704	1.00	50.97
ATOM	2564	NE2	HIS	A	345	23.250	45.445	18.071	1.00	49.88
ATOM	2565	N	ILE	A	346	24.010	45.839	24.068	1.00	44.11
ATOM	2566	CA	ILE	A	346	24.321	45.533	25.456	1.00	44.80
ATOM	2567	C	ILE	A	346	25.406	44.498	25.572	1.00	44.66
ATOM	2568	O	ILE	A	346	25.445	43.579	24.782	1.00	44.38
ATOM	2569	CB	ILE	A	346	23.061	44.957	26.130	1.00	45.03
ATOM	2570	CG1	ILE	A	346	21.984	46.030	26.251	1.00	46.42
ATOM	2571	CG2	ILE	A	346	23.403	44.349	27.485	1.00	45.11
ATOM	2572	CD1	ILE	A	346	20.698	45.504	26.887	1.00	48.78
ATOM	2573	N	GLU	A	347	26.281	44.647	26.561	1.00	44.63
ATOM	2574	CA	GLU	A	347	27.304	43.634	26.846	1.00	45.49
ATOM	2575	C	GLU	A	347	27.319	43.349	28.332	1.00	46.21
ATOM	2576	O	GLU	A	347	27.265	44.287	29.130	1.00	46.36

ATOM	2577	CB	GLU	A	347	28.683	44.102	26.431	1.00 45.45
ATOM	2578	CG	GLU	A	347	28.840	44.218	24.941	1.00 45.59
ATOM	2579	CD	GLU	A	347	30.230	44.657	24.535	1.00 46.13
ATOM	2580	OE1	GLU	A	347	31.228	44.114	25.070	1.00 44.42
ATOM	2581	OE2	GLU	A	347	30.305	45.522	23.641	1.00 48.13
ATOM	2582	N	MET	A	348	27.383	42.064	28.692	1.00 46.97
ATOM	2583	CA	MET	A	348	27.417	41.624	30.080	1.00 47.81
ATOM	2584	C	MET	A	348	28.436	40.512	30.213	1.00 48.11
ATOM	2585	O	MET	A	348	28.596	39.690	29.314	1.00 48.00
ATOM	2586	CB	MET	A	348	26.072	41.037	30.495	1.00 48.89
ATOM	2587	CG	MET	A	348	24.850	41.803	30.045	1.00 52.13
ATOM	2588	SD	MET	A	348	23.299	41.001	30.546	1.00 57.88
ATOM	2589	CE	MET	A	348	23.747	39.227	30.232	1.00 58.62
ATOM	2590	N	SER	A	349	29.153	40.449	31.319	1.00 48.36
ATOM	2591	CA	SER	A	349	30.059	39.325	31.465	1.00 48.44
ATOM	2592	C	SER	A	349	29.454	38.520	32.551	1.00 48.12
ATOM	2593	O	SER	A	349	28.822	39.068	33.453	1.00 48.86
ATOM	2594	CB	SER	A	349	31.497	39.739	31.816	1.00 49.01
ATOM	2595	OG	SER	A	349	32.299	38.621	32.216	1.00 47.97
ATOM	2596	N	THR	A	350	29.617	37.214	32.456	1.00 47.84
ATOM	2597	CA	THR	A	350	29.142	36.342	33.507	1.00 47.83
ATOM	2598	C	THR	A	350	30.323	36.049	34.417	1.00 46.74
ATOM	2599	O	THR	A	350	30.217	36.207	35.620	1.00 46.92
ATOM	2600	CB	THR	A	350	28.503	35.029	32.918	1.00 48.52
ATOM	2601	OG1	THR	A	350	27.077	35.036	33.128	1.00 48.99
ATOM	2602	CG2	THR	A	350	28.935	33.779	33.680	1.00 49.06
ATOM	2603	N	THR	A	351	31.460	35.668	33.836	1.00 44.97
ATOM	2604	CA	THR	A	351	32.587	35.220	34.648	1.00 43.60
ATOM	2605	C	THR	A	351	33.506	36.322	35.211	1.00 42.20
ATOM	2606	O	THR	A	351	34.397	36.049	36.010	1.00 42.09
ATOM	2607	CB	THR	A	351	33.377	34.161	33.872	1.00 44.01
ATOM	2608	OG1	THR	A	351	33.740	34.647	32.574	1.00 43.68
ATOM	2609	CG2	THR	A	351	32.481	32.935	33.563	1.00 43.10
ATOM	2610	N	GLY	A	352	33.256	37.575	34.838	1.00 40.20
ATOM	2611	CA	GLY	A	352	34.104	38.652	35.275	1.00 37.56
ATOM	2612	C	GLY	A	352	33.645	40.018	34.828	1.00 35.59
ATOM	2613	O	GLY	A	352	32.492	40.400	35.022	1.00 33.74
ATOM	2614	N	TRP	A	353	34.549	40.757	34.199	1.00 32.99
ATOM	2615	CA	TRP	A	353	34.260	42.148	33.875	1.00 31.53
ATOM	2616	C	TRP	A	353	34.108	42.268	32.365	1.00 30.70
ATOM	2617	O	TRP	A	353	34.170	41.276	31.690	1.00 31.36
ATOM	2618	CB	TRP	A	353	35.384	43.033	34.441	1.00 30.98
ATOM	2619	CG	TRP	A	353	36.767	42.617	33.951	1.00 26.61
ATOM	2620	CD1	TRP	A	353	37.385	43.116	32.901	1.00 22.83
ATOM	2621	CD2	TRP	A	353	37.668	41.653	34.533	1.00 21.90
ATOM	2622	NE1	TRP	A	353	38.637	42.556	32.764	1.00 26.03
ATOM	2623	CE2	TRP	A	353	38.816	41.631	33.743	1.00 24.09
ATOM	2624	CE3	TRP	A	353	37.623	40.821	35.648	1.00 21.95
ATOM	2625	CZ2	TRP	A	353	39.899	40.814	34.006	1.00 23.28
ATOM	2626	CZ3	TRP	A	353	38.715	39.999	35.926	1.00 18.74
ATOM	2627	CH2	TRP	A	353	39.828	40.007	35.099	1.00 23.86
ATOM	2628	N	VAL	A	354	33.911	43.460	31.833	1.00 30.38
ATOM	2629	CA	VAL	A	354	33.693	43.639	30.388	1.00 30.47
ATOM	2630	C	VAL	A	354	34.944	44.147	29.691	1.00 30.78
ATOM	2631	O	VAL	A	354	35.436	45.236	29.995	1.00 31.50
ATOM	2632	CB	VAL	A	354	32.598	44.726	30.118	1.00 29.56
ATOM	2633	CG1	VAL	A	354	32.331	44.886	28.720	1.00 29.31
ATOM	2634	CG2	VAL	A	354	31.310	44.383	30.775	1.00 29.98
ATOM	2635	N	GLY	A	355	35.437	43.373	28.745	1.00 30.87
ATOM	2636	CA	GLY	A	355	36.612	43.739	27.966	1.00 31.04
ATOM	2637	C	GLY	A	355	37.883	43.431	28.714	1.00 31.16
ATOM	2638	O	GLY	A	355	37.868	42.748	29.745	1.00 31.10
ATOM	2639	N	ARG	A	356	39.001	43.944	28.215	1.00 32.24
ATOM	2640	CA	ARG	A	356	40.290	43.653	28.829	1.00 33.32
ATOM	2641	C	ARG	A	356	40.551	44.699	29.939	1.00 33.80
ATOM	2642	O	ARG	A	356	40.449	44.391	31.136	1.00 33.03
ATOM	2643	CB	ARG	A	356	41.389	43.602	27.776	1.00 33.33
ATOM	2644	CG	ARG	A	356	41.468	42.265	27.012	1.00 35.53
ATOM	2645	CD	ARG	A	356	42.500	42.252	25.810	1.00 36.37
ATOM	2646	NE	ARG	A	356	42.593	40.937	25.161	1.00 39.23

ATOM	2647	CZ	ARG	A	356	42.422	40.677	23.835	1.00 37.64
ATOM	2648	NH1	ARG	A	356	42.114	41.615	22.958	1.00 36.00
ATOM	2649	NH2	ARG	A	356	42.559	39.452	23.394	1.00 37.65
ATOM	2650	N	PHE	A	357	40.815	45.932	29.532	1.00 34.12
ATOM	2651	CA	PHE	A	357	40.960	47.044	30.471	1.00 35.49
ATOM	2652	C	PHE	A	357	39.778	47.998	30.390	1.00 35.77
ATOM	2653	O	PHE	A	357	39.651	48.933	31.179	1.00 34.97
ATOM	2654	CB	PHE	A	357	42.269	47.761	30.192	1.00 35.85
ATOM	2655	CG	PHE	A	357	43.459	46.902	30.485	1.00 38.15
ATOM	2656	CD1	PHE	A	357	43.800	46.605	31.799	1.00 38.33
ATOM	2657	CD2	PHE	A	357	44.184	46.330	29.460	1.00 40.95
ATOM	2658	CE1	PHE	A	357	44.885	45.800	32.082	1.00 38.68
ATOM	2659	CE2	PHE	A	357	45.269	45.527	29.739	1.00 42.58
ATOM	2660	CZ	PHE	A	357	45.618	45.261	31.057	1.00 41.21
ATOM	2661	N	ARG	A	358	38.897	47.706	29.437	1.00 36.06
ATOM	2662	CA	ARG	A	358	37.711	48.497	29.157	1.00 36.46
ATOM	2663	C	ARG	A	358	36.922	47.799	28.024	1.00 35.36
ATOM	2664	O	ARG	A	358	37.391	46.871	27.430	1.00 34.09
ATOM	2665	CB	ARG	A	358	38.115	49.913	28.726	1.00 36.17
ATOM	2666	CG	ARG	A	358	39.145	49.958	27.558	1.00 39.77
ATOM	2667	CD	ARG	A	358	39.180	51.309	26.811	1.00 43.70
ATOM	2668	NE	ARG	A	358	40.420	52.050	26.994	1.00 48.95
ATOM	2669	CZ	ARG	A	358	40.844	52.594	28.135	1.00 52.79
ATOM	2670	NH1	ARG	A	358	40.115	52.528	29.240	1.00 56.15
ATOM	2671	NH2	ARG	A	358	42.001	53.246	28.170	1.00 52.75
ATOM	2672	N	PRO	A	359	35.697	48.233	27.786	1.00 34.80
ATOM	2673	CA	PRO	A	359	34.923	47.749	26.658	1.00 33.84
ATOM	2674	C	PRO	A	359	35.692	47.972	25.354	1.00 33.44
ATOM	2675	O	PRO	A	359	36.257	49.023	25.165	1.00 32.66
ATOM	2676	CB	PRO	A	359	33.701	48.654	26.688	1.00 34.51
ATOM	2677	CG	PRO	A	359	33.538	48.976	28.143	1.00 35.09
ATOM	2678	CD	PRO	A	359	34.950	49.197	28.616	1.00 34.39
ATOM	2679	N	SER	A	360	35.667	46.992	24.461	1.00 31.83
ATOM	2680	CA	SER	A	360	36.344	47.084	23.212	1.00 30.20
ATOM	2681	C	SER	A	360	35.705	48.140	22.314	1.00 29.79
ATOM	2682	O	SER	A	360	34.533	48.475	22.423	1.00 29.04
ATOM	2683	CB	SER	A	360	36.335	45.724	22.527	1.00 30.82
ATOM	2684	OG	SER	A	360	35.019	45.301	22.235	1.00 29.59
ATOM	2685	N	GLU	A	361	36.525	48.701	21.450	1.00 29.11
ATOM	2686	CA	GLU	A	361	36.077	49.715	20.532	1.00 30.22
ATOM	2687	C	GLU	A	361	35.319	49.111	19.332	1.00 29.39
ATOM	2688	O	GLU	A	361	35.743	48.116	18.782	1.00 27.57
ATOM	2689	CB	GLU	A	361	37.312	50.426	20.028	1.00 30.69
ATOM	2690	CG	GLU	A	361	37.141	51.253	18.799	1.00 34.45
ATOM	2691	CD	GLU	A	361	38.464	51.764	18.297	1.00 38.00
ATOM	2692	OE1	GLU	A	361	39.487	51.227	18.751	1.00 44.33
ATOM	2693	OE2	GLU	A	361	38.490	52.699	17.475	1.00 40.62
ATOM	2694	N	PRO	A	362	34.228	49.754	18.941	1.00 30.05
ATOM	2695	CA	PRO	A	362	33.482	49.427	17.716	1.00 30.28
ATOM	2696	C	PRO	A	362	34.118	50.047	16.461	1.00 30.65
ATOM	2697	O	PRO	A	362	34.522	51.189	16.533	1.00 30.95
ATOM	2698	CB	PRO	A	362	32.160	50.116	17.938	1.00 30.19
ATOM	2699	CG	PRO	A	362	32.417	51.216	18.892	1.00 29.85
ATOM	2700	CD	PRO	A	362	33.630	50.892	19.653	1.00 30.30
ATOM	2701	N	HIS	A	363	34.185	49.309	15.348	1.00 30.69
ATOM	2702	CA	HIS	A	363	34.766	49.766	14.099	1.00 31.18
ATOM	2703	C	HIS	A	363	33.636	49.717	13.044	1.00 32.07
ATOM	2704	O	HIS	A	363	33.249	48.637	12.585	1.00 32.01
ATOM	2705	CB	HIS	A	363	35.898	48.828	13.709	1.00 31.43
ATOM	2706	CG	HIS	A	363	37.104	48.970	14.572	1.00 30.92
ATOM	2707	ND1	HIS	A	363	37.120	48.604	15.905	1.00 33.58
ATOM	2708	CD2	HIS	A	363	38.313	49.509	14.316	1.00 31.13
ATOM	2709	CE1	HIS	A	363	38.309	48.864	16.413	1.00 32.05
ATOM	2710	NE2	HIS	A	363	39.052	49.412	15.467	1.00 33.31
ATOM	2711	N	PHE	A	364	33.116	50.892	12.705	1.00 31.92
ATOM	2712	CA	PHE	A	364	31.934	51.036	11.883	1.00 32.06
ATOM	2713	C	PHE	A	364	32.243	50.969	10.422	1.00 32.54
ATOM	2714	O	PHE	A	364	33.218	51.536	9.961	1.00 31.64
ATOM	2715	CB	PHE	A	364	31.233	52.387	12.149	1.00 31.72
ATOM	2716	CG	PHE	A	364	30.437	52.437	13.439	1.00 31.78

ATOM	2717	CD1	PHE	A	364	29.090	52.119	13.464	1.00	27.81
ATOM	2718	CD2	PHE	A	364	31.053	52.790	14.639	1.00	33.24
ATOM	2719	CE1	PHE	A	364	28.378	52.176	14.613	1.00	29.56
ATOM	2720	CE2	PHE	A	364	30.352	52.821	15.795	1.00	31.13
ATOM	2721	CZ	PHE	A	364	28.986	52.518	15.784	1.00	32.61
ATOM	2722	N	THR	A	365	31.368	50.293	9.674	1.00	33.31
ATOM	2723	CA	THR	A	365	31.498	50.288	8.253	1.00	34.57
ATOM	2724	C	THR	A	365	31.228	51.716	7.819	1.00	34.99
ATOM	2725	O	THR	A	365	30.651	52.496	8.546	1.00	34.77
ATOM	2726	CB	THR	A	365	30.504	49.317	7.601	1.00	35.03
ATOM	2727	OG1	THR	A	365	29.176	49.649	8.001	1.00	38.45
ATOM	2728	CG2	THR	A	365	30.681	47.938	8.127	1.00	34.53
ATOM	2729	N	LEU	A	366	31.672	52.053	6.623	1.00	36.44
ATOM	2730	CA	LEU	A	366	31.561	53.401	6.106	1.00	37.06
ATOM	2731	C	LEU	A	366	30.167	53.996	6.119	1.00	37.17
ATOM	2732	O	LEU	A	366	30.032	55.214	6.280	1.00	37.82
ATOM	2733	CB	LEU	A	366	32.056	53.415	4.667	1.00	37.55
ATOM	2734	CG	LEU	A	366	33.483	53.889	4.390	1.00	39.89
ATOM	2735	CD1	LEU	A	366	33.638	54.070	2.878	1.00	41.97
ATOM	2736	CD2	LEU	A	366	33.776	55.209	5.134	1.00	42.04
ATOM	2737	N	ASP	A	367	29.139	53.174	5.912	1.00	36.03
ATOM	2738	CA	ASP	A	367	27.773	53.701	5.888	1.00	36.01
ATOM	2739	C	ASP	A	367	27.199	53.910	7.269	1.00	34.74
ATOM	2740	O	ASP	A	367	26.175	54.561	7.426	1.00	34.21
ATOM	2741	CB	ASP	A	367	26.812	52.825	5.054	1.00	36.66
ATOM	2742	CG	ASP	A	367	26.868	51.345	5.410	1.00	38.11
ATOM	2743	OD1	ASP	A	367	27.230	50.976	6.536	1.00	38.62
ATOM	2744	OD2	ASP	A	367	26.578	50.456	4.579	1.00	43.47
ATOM	2745	N	GLY	A	368	27.856	53.316	8.258	1.00	33.46
ATOM	2746	CA	GLY	A	368	27.506	53.488	9.650	1.00	32.51
ATOM	2747	C	GLY	A	368	26.426	52.599	10.153	1.00	31.58
ATOM	2748	O	GLY	A	368	25.992	52.784	11.281	1.00	30.96
ATOM	2749	N	ASN	A	369	25.998	51.633	9.334	1.00	30.28
ATOM	2750	CA	ASN	A	369	24.828	50.848	9.660	1.00	29.27
ATOM	2751	C	ASN	A	369	25.249	49.571	10.281	1.00	28.67
ATOM	2752	O	ASN	A	369	24.417	48.759	10.684	1.00	28.60
ATOM	2753	CB	ASN	A	369	24.027	50.569	8.372	1.00	30.29
ATOM	2754	CG	ASN	A	369	23.406	51.857	7.752	1.00	29.97
ATOM	2755	OD1	ASN	A	369	23.046	52.775	8.459	1.00	30.57
ATOM	2756	ND2	ASN	A	369	23.263	51.880	6.433	1.00	31.70
ATOM	2757	N	SER	A	370	26.561	49.372	10.370	1.00	27.14
ATOM	2758	CA	SER	A	370	27.082	48.168	10.954	1.00	26.22
ATOM	2759	C	SER	A	370	28.511	48.399	11.463	1.00	25.28
ATOM	2760	O	SER	A	370	29.195	49.343	11.038	1.00	21.89
ATOM	2761	CB	SER	A	370	27.082	47.027	9.927	1.00	25.88
ATOM	2762	OG	SER	A	370	27.952	47.340	8.858	1.00	30.29
ATOM	2763	N	PHE	A	371	28.929	47.505	12.362	1.00	25.10
ATOM	2764	CA	PHE	A	371	30.242	47.615	13.005	1.00	26.36
ATOM	2765	C	PHE	A	371	30.828	46.295	13.463	1.00	25.97
ATOM	2766	O	PHE	A	371	30.118	45.320	13.638	1.00	26.84
ATOM	2767	CB	PHE	A	371	30.188	48.599	14.177	1.00	26.14
ATOM	2768	CG	PHE	A	371	29.275	48.201	15.265	1.00	27.08
ATOM	2769	CD1	PHE	A	371	29.715	47.412	16.300	1.00	30.96
ATOM	2770	CD2	PHE	A	371	27.974	48.642	15.299	1.00	25.40
ATOM	2771	CE1	PHE	A	371	28.856	47.055	17.334	1.00	26.99
ATOM	2772	CE2	PHE	A	371	27.148	48.280	16.324	1.00	24.25
ATOM	2773	CZ	PHE	A	371	27.586	47.490	17.320	1.00	26.85
ATOM	2774	N	TYR	A	372	32.139	46.271	13.632	1.00	26.28
ATOM	2775	CA	TYR	A	372	32.825	45.074	14.091	1.00	26.83
ATOM	2776	C	TYR	A	372	33.463	45.428	15.431	1.00	28.08
ATOM	2777	O	TYR	A	372	33.841	46.570	15.649	1.00	28.37
ATOM	2778	CB	TYR	A	372	33.879	44.638	13.069	1.00	26.10
ATOM	2779	CG	TYR	A	372	33.347	44.403	11.661	1.00	26.71
ATOM	2780	CD1	TYR	A	372	33.028	45.443	10.832	1.00	26.09
ATOM	2781	CD2	TYR	A	372	33.209	43.138	11.160	1.00	29.23
ATOM	2782	CE1	TYR	A	372	32.556	45.227	9.569	1.00	26.18
ATOM	2783	CE2	TYR	A	372	32.743	42.916	9.900	1.00	28.68
ATOM	2784	CZ	TYR	A	372	32.424	43.958	9.117	1.00	27.90
ATOM	2785	OH	TYR	A	372	31.973	43.707	7.864	1.00	31.58
ATOM	2786	N	LYS	A	373	33.613	44.443	16.313	1.00	28.86

ATOM	2787	CA	LYS	A	373	34.072	44.700	17.656	1.00	29.30
ATOM	2788	C	LYS	A	373	34.489	43.366	18.288	1.00	29.14
ATOM	2789	O	LYS	A	373	33.875	42.340	18.010	1.00	29.72
ATOM	2790	CB	LYS	A	373	32.880	45.336	18.386	1.00	29.76
ATOM	2791	CG	LYS	A	373	32.978	45.558	19.860	1.00	30.57
ATOM	2792	CD	LYS	A	373	31.682	46.194	20.346	1.00	32.41
ATOM	2793	CE	LYS	A	373	31.844	47.024	21.596	1.00	32.07
ATOM	2794	NZ	LYS	A	373	32.598	46.321	22.684	1.00	29.62
ATOM	2795	N	ILE	A	374	35.499	43.391	19.148	1.00	28.91
ATOM	2796	CA	ILE	A	374	36.021	42.191	19.781	1.00	29.20
ATOM	2797	C	ILE	A	374	35.148	41.887	20.984	1.00	28.30
ATOM	2798	O	ILE	A	374	34.898	42.761	21.774	1.00	28.69
ATOM	2799	CB	ILE	A	374	37.494	42.401	20.204	1.00	30.10
ATOM	2800	CG1	ILE	A	374	38.384	42.477	18.987	1.00	32.01
ATOM	2801	CG2	ILE	A	374	37.993	41.269	21.108	1.00	29.55
ATOM	2802	CD1	ILE	A	374	39.681	43.157	19.261	1.00	33.64
ATOM	2803	N	ILE	A	375	34.706	40.641	21.089	1.00	28.00
ATOM	2804	CA	ILE	A	375	33.741	40.154	22.089	1.00	28.41
ATOM	2805	C	ILE	A	375	34.173	38.776	22.497	1.00	27.88
ATOM	2806	O	ILE	A	375	34.505	37.967	21.650	1.00	26.80
ATOM	2807	CB	ILE	A	375	32.327	40.001	21.440	1.00	28.32
ATOM	2808	CG1	ILE	A	375	31.805	41.337	20.929	1.00	30.15
ATOM	2809	CG2	ILE	A	375	31.333	39.397	22.409	1.00	29.72
ATOM	2810	CD1	ILE	A	375	31.377	42.302	21.983	1.00	30.99
ATOM	2811	N	SER	A	376	34.147	38.492	23.784	1.00	27.89
ATOM	2812	CA	SER	A	376	34.455	37.157	24.279	1.00	29.16
ATOM	2813	C	SER	A	376	33.410	36.201	23.729	1.00	30.08
ATOM	2814	O	SER	A	376	32.236	36.458	23.875	1.00	29.10
ATOM	2815	CB	SER	A	376	34.383	37.165	25.822	1.00	29.45
ATOM	2816	OG	SER	A	376	34.900	35.961	26.326	1.00	31.37
ATOM	2817	N	ASN	A	377	33.814	35.100	23.102	1.00	31.00
ATOM	2818	CA	ASN	A	377	32.823	34.179	22.567	1.00	32.06
ATOM	2819	C	ASN	A	377	32.376	33.201	23.630	1.00	34.27
ATOM	2820	O	ASN	A	377	32.726	33.353	24.800	1.00	34.39
ATOM	2821	CB	ASN	A	377	33.288	33.491	21.302	1.00	32.07
ATOM	2822	CG	ASN	A	377	34.414	32.523	21.538	1.00	30.43
ATOM	2823	OD1	ASN	A	377	35.098	32.122	20.596	1.00	31.65
ATOM	2824	ND2	ASN	A	377	34.622	32.151	22.767	1.00	28.95
ATOM	2825	N	GLU	A	378	31.595	32.205	23.245	1.00	35.46
ATOM	2826	CA	GLU	A	378	30.991	31.306	24.233	1.00	37.20
ATOM	2827	C	GLU	A	378	32.021	30.328	24.877	1.00	36.50
ATOM	2828	O	GLU	A	378	31.752	29.722	25.896	1.00	37.33
ATOM	2829	CB	GLU	A	378	29.697	30.690	23.617	1.00	37.64
ATOM	2830	CG	GLU	A	378	29.425	29.208	23.836	1.00	43.49
ATOM	2831	CD	GLU	A	378	28.157	28.707	23.103	1.00	49.09
ATOM	2832	OE1	GLU	A	378	27.131	29.431	23.082	1.00	54.01
ATOM	2833	OE2	GLU	A	378	28.168	27.584	22.544	1.00	53.42
ATOM	2834	N	GLU	A	379	33.225	30.231	24.340	1.00	35.87
ATOM	2835	CA	GLU	A	379	34.270	29.437	24.982	1.00	36.04
ATOM	2836	C	GLU	A	379	35.201	30.351	25.781	1.00	34.45
ATOM	2837	O	GLU	A	379	36.183	29.909	26.363	1.00	34.05
ATOM	2838	CB	GLU	A	379	35.131	28.688	23.957	1.00	37.56
ATOM	2839	CG	GLU	A	379	34.483	27.505	23.249	1.00	41.83
ATOM	2840	CD	GLU	A	379	33.709	27.905	22.009	1.00	48.27
ATOM	2841	OE1	GLU	A	379	34.052	28.946	21.394	1.00	50.70
ATOM	2842	OE2	GLU	A	379	32.738	27.172	21.652	1.00	53.49
ATOM	2843	N	GLY	A	380	34.922	31.634	25.802	1.00	32.96
ATOM	2844	CA	GLY	A	380	35.759	32.536	26.570	1.00	32.06
ATOM	2845	C	GLY	A	380	36.963	33.130	25.827	1.00	30.76
ATOM	2846	O	GLY	A	380	37.865	33.636	26.488	1.00	30.06
ATOM	2847	N	TYR	A	381	36.942	33.106	24.490	1.00	29.35
ATOM	2848	CA	TYR	A	381	37.990	33.659	23.635	1.00	29.39
ATOM	2849	C	TYR	A	381	37.496	34.879	22.840	1.00	28.64
ATOM	2850	O	TYR	A	381	36.388	34.888	22.230	1.00	28.59
ATOM	2851	CB	TYR	A	381	38.602	32.594	22.691	1.00	30.01
ATOM	2852	CG	TYR	A	381	39.328	31.479	23.441	1.00	31.34
ATOM	2853	CD1	TYR	A	381	38.625	30.401	23.962	1.00	34.09
ATOM	2854	CD2	TYR	A	381	40.698	31.535	23.677	1.00	31.70
ATOM	2855	CE1	TYR	A	381	39.258	29.401	24.666	1.00	32.67
ATOM	2856	CE2	TYR	A	381	41.338	30.526	24.368	1.00	29.86

ATOM	2857	CZ	TYR	A	381	40.604	29.474	24.862	1.00	32.07
ATOM	2858	OH	TYR	A	381	41.210	28.462	25.564	1.00	36.44
ATOM	2859	N	ARG	A	382	38.341	35.900	22.839	1.00	27.18
ATOM	2860	CA	ARG	A	382	38.030	37.190	22.262	1.00	27.54
ATOM	2861	C	ARG	A	382	38.183	37.171	20.751	1.00	27.17
ATOM	2862	O	ARG	A	382	39.281	37.077	20.241	1.00	27.99
ATOM	2863	CB	ARG	A	382	38.916	38.274	22.890	1.00	27.41
ATOM	2864	CG	ARG	A	382	38.377	38.750	24.239	1.00	27.74
ATOM	2865	CD	ARG	A	382	39.355	39.449	25.210	1.00	28.40
ATOM	2866	NE	ARG	A	382	38.855	39.054	26.526	1.00	27.90
ATOM	2867	CZ	ARG	A	382	37.797	39.602	27.121	1.00	25.68
ATOM	2868	NH1	ARG	A	382	37.165	40.666	26.618	1.00	27.00
ATOM	2869	NH2	ARG	A	382	37.370	39.080	28.224	1.00	24.84
ATOM	2870	N	HIS	A	383	37.064	37.313	20.061	1.00	26.95
ATOM	2871	CA	HIS	A	383	37.000	37.242	18.595	1.00	25.86
ATOM	2872	C	HIS	A	383	36.196	38.388	18.029	1.00	26.13
ATOM	2873	O	HIS	A	383	35.551	39.124	18.766	1.00	26.39
ATOM	2874	CB	HIS	A	383	36.436	35.902	18.170	1.00	25.61
ATOM	2875	CG	HIS	A	383	37.439	34.812	18.260	1.00	25.70
ATOM	2876	ND1	HIS	A	383	38.503	34.733	17.391	1.00	23.67
ATOM	2877	CD2	HIS	A	383	37.604	33.812	19.161	1.00	23.59
ATOM	2878	CE1	HIS	A	383	39.282	33.728	17.761	1.00	22.66
ATOM	2879	NE2	HIS	A	383	38.773	33.173	18.845	1.00	19.46
ATOM	2880	N	ILE	A	384	36.232	38.547	16.715	1.00	25.92
ATOM	2881	CA	ILE	A	384	35.586	39.671	16.091	1.00	26.57
ATOM	2882	C	ILE	A	384	34.165	39.283	15.784	1.00	27.32
ATOM	2883	O	ILE	A	384	33.921	38.262	15.161	1.00	27.14
ATOM	2884	CB	ILE	A	384	36.306	40.039	14.778	1.00	26.65
ATOM	2885	CG1	ILE	A	384	37.734	40.458	15.054	1.00	27.00
ATOM	2886	CG2	ILE	A	384	35.552	41.135	14.042	1.00	26.58
ATOM	2887	CD1	ILE	A	384	38.700	40.235	13.849	1.00	29.40
ATOM	2888	N	CYS	A	385	33.238	40.114	16.222	1.00	27.67
ATOM	2889	CA	CYS	A	385	31.854	39.885	15.968	1.00	28.87
ATOM	2890	C	CYS	A	385	31.428	41.007	15.069	1.00	27.76
ATOM	2891	O	CYS	A	385	31.951	42.109	15.186	1.00	27.14
ATOM	2892	CB	CYS	A	385	31.028	39.905	17.272	1.00	29.48
ATOM	2893	SG	CYS	A	385	29.828	38.587	17.270	1.00	37.72
ATOM	2894	N	TYR	A	386	30.466	40.709	14.189	1.00	27.09
ATOM	2895	CA	TYR	A	386	29.895	41.657	13.260	1.00	27.30
ATOM	2896	C	TYR	A	386	28.467	41.893	13.698	1.00	27.66
ATOM	2897	O	TYR	A	386	27.728	40.921	13.954	1.00	29.00
ATOM	2898	CB	TYR	A	386	29.936	41.065	11.870	1.00	27.12
ATOM	2899	CG	TYR	A	386	29.181	41.792	10.797	1.00	26.46
ATOM	2900	CD1	TYR	A	386	29.530	43.057	10.410	1.00	22.92
ATOM	2901	CD2	TYR	A	386	28.133	41.158	10.124	1.00	27.21
ATOM	2902	CE1	TYR	A	386	28.844	43.692	9.400	1.00	26.58
ATOM	2903	CE2	TYR	A	386	27.428	41.801	9.142	1.00	27.27
ATOM	2904	CZ	TYR	A	386	27.788	43.055	8.773	1.00	26.83
ATOM	2905	OH	TYR	A	386	27.075	43.689	7.788	1.00	29.03
ATOM	2906	N	PHE	A	387	28.110	43.172	13.812	1.00	27.27
ATOM	2907	CA	PHE	A	387	26.840	43.648	14.343	1.00	27.38
ATOM	2908	C	PHE	A	387	26.159	44.523	13.298	1.00	27.63
ATOM	2909	O	PHE	A	387	26.830	45.404	12.719	1.00	27.68
ATOM	2910	CB	PHE	A	387	27.100	44.625	15.526	1.00	27.34
ATOM	2911	CG	PHE	A	387	27.511	43.969	16.806	1.00	28.85
ATOM	2912	CD1	PHE	A	387	28.871	43.725	17.092	1.00	31.74
ATOM	2913	CD2	PHE	A	387	26.575	43.626	17.750	1.00	28.35
ATOM	2914	CE1	PHE	A	387	29.245	43.137	18.294	1.00	29.31
ATOM	2915	CE2	PHE	A	387	26.965	43.056	18.952	1.00	30.57
ATOM	2916	CZ	PHE	A	387	28.294	42.800	19.210	1.00	30.81
ATOM	2917	N	GLN	A	388	24.852	44.352	13.101	1.00	27.28
ATOM	2918	CA	GLN	A	388	24.102	45.249	12.225	1.00	28.29
ATOM	2919	C	GLN	A	388	23.250	46.113	13.095	1.00	28.91
ATOM	2920	O	GLN	A	388	22.579	45.663	13.993	1.00	29.61
ATOM	2921	CB	GLN	A	388	23.320	44.493	11.152	1.00	27.95
ATOM	2922	CG	GLN	A	388	24.261	43.652	10.242	1.00	29.84
ATOM	2923	CD	GLN	A	388	23.520	42.916	9.116	1.00	30.76
ATOM	2924	OE1	GLN	A	388	22.495	42.320	9.359	1.00	32.29
ATOM	2925	NE2	GLN	A	388	24.056	42.966	7.896	1.00	32.24
ATOM	2926	N	ILE	A	389	23.244	47.385	12.822	1.00	31.80

ATOM	2927	CA	ILE	A	389	22.690	48.323	13.800	1.00	34.40
ATOM	2928	C	ILE	A	389	21.329	48.154	14.439	1.00	36.24
ATOM	2929	O	ILE	A	389	21.186	48.523	15.619	1.00	39.05
ATOM	2930	CB	ILE	A	389	22.894	49.752	13.337	1.00	34.30
ATOM	2931	CG1	ILE	A	389	24.267	50.161	13.838	1.00	35.49
ATOM	2932	CG2	ILE	A	389	21.840	50.662	13.911	1.00	35.63
ATOM	2933	CD1	ILE	A	389	24.667	51.476	13.397	1.00	37.16
ATOM	2934	N	ASP	A	390	20.342	47.603	13.764	1.00	37.12
ATOM	2935	CA	ASP	A	390	19.049	47.422	14.446	1.00	38.19
ATOM	2936	C	ASP	A	390	18.648	45.969	14.536	1.00	37.79
ATOM	2937	O	ASP	A	390	17.470	45.665	14.668	1.00	36.89
ATOM	2938	CB	ASP	A	390	17.920	48.129	13.674	1.00	38.61
ATOM	2939	CG	ASP	A	390	17.817	49.577	14.029	1.00	41.07
ATOM	2940	OD1	ASP	A	390	17.580	49.835	15.218	1.00	45.39
ATOM	2941	OD2	ASP	A	390	17.971	50.513	13.212	1.00	43.05
ATOM	2942	N	LYS	A	391	19.622	45.083	14.434	1.00	36.90
ATOM	2943	CA	LYS	A	391	19.362	43.655	14.372	1.00	36.88
ATOM	2944	C	LYS	A	391	19.915	43.078	15.622	1.00	35.55
ATOM	2945	O	LYS	A	391	20.926	43.539	16.121	1.00	33.43
ATOM	2946	CB	LYS	A	391	20.103	43.015	13.160	1.00	37.29
ATOM	2947	CG	LYS	A	391	19.262	42.731	11.901	1.00	41.18
ATOM	2948	CD	LYS	A	391	20.093	41.805	10.904	1.00	45.70
ATOM	2949	CE	LYS	A	391	19.397	41.478	9.550	1.00	45.90
ATOM	2950	NZ	LYS	A	391	20.375	41.390	8.330	1.00	46.25
ATOM	2951	N	LYS	A	392	19.278	42.036	16.103	1.00	35.58
ATOM	2952	CA	LYS	A	392	19.758	41.339	17.270	1.00	36.06
ATOM	2953	C	LYS	A	392	21.064	40.596	17.002	1.00	36.18
ATOM	2954	O	LYS	A	392	21.482	40.424	15.839	1.00	35.91
ATOM	2955	CB	LYS	A	392	18.722	40.300	17.661	1.00	36.65
ATOM	2956	CG	LYS	A	392	18.442	39.262	16.551	1.00	38.84
ATOM	2957	CD	LYS	A	392	17.712	38.042	17.122	1.00	41.45
ATOM	2958	CE	LYS	A	392	16.893	37.290	16.095	1.00	41.02
ATOM	2959	NZ	LYS	A	392	16.224	36.066	16.691	1.00	38.35
ATOM	2960	N	ASP	A	393	21.667	40.138	18.099	1.00	35.78
ATOM	2961	CA	ASP	A	393	22.823	39.268	18.103	1.00	35.76
ATOM	2962	C	ASP	A	393	23.968	39.817	17.239	1.00	34.85
ATOM	2963	O	ASP	A	393	23.914	40.946	16.741	1.00	33.92
ATOM	2964	CB	ASP	A	393	22.446	37.857	17.584	1.00	36.56
ATOM	2965	CG	ASP	A	393	21.231	37.219	18.295	1.00	40.35
ATOM	2966	OD1	ASP	A	393	21.026	37.404	19.531	1.00	42.98
ATOM	2967	OD2	ASP	A	393	20.435	36.460	17.672	1.00	42.96
ATOM	2968	N	CYS	A	394	25.019	39.019	17.088	1.00	33.41
ATOM	2969	CA	CYS	A	394	26.088	39.369	16.187	1.00	33.82
ATOM	2970	C	CYS	A	394	26.580	38.083	15.570	1.00	32.97
ATOM	2971	O	CYS	A	394	26.256	36.967	16.039	1.00	32.97
ATOM	2972	CB	CYS	A	394	27.238	40.084	16.914	1.00	34.46
ATOM	2973	SG	CYS	A	394	28.009	39.022	18.136	1.00	38.67
ATOM	2974	N	THR	A	395	27.388	38.231	14.531	1.00	30.95
ATOM	2975	CA	THR	A	395	27.928	37.081	13.851	1.00	29.51
ATOM	2976	C	THR	A	395	29.434	37.066	14.088	1.00	28.32
ATOM	2977	O	THR	A	395	30.128	38.006	13.729	1.00	26.38
ATOM	2978	CB	THR	A	395	27.676	37.235	12.342	1.00	30.00
ATOM	2979	OG1	THR	A	395	26.271	37.381	12.063	1.00	30.37
ATOM	2980	CG2	THR	A	395	28.140	36.013	11.558	1.00	28.82
ATOM	2981	N	PHE	A	396	29.935	36.000	14.682	1.00	27.62
ATOM	2982	CA	PHE	A	396	31.356	35.805	14.830	1.00	27.77
ATOM	2983	C	PHE	A	396	32.016	35.496	13.486	1.00	28.57
ATOM	2984	O	PHE	A	396	31.582	34.611	12.753	1.00	29.01
ATOM	2985	CB	PHE	A	396	31.601	34.686	15.818	1.00	27.37
ATOM	2986	CG	PHE	A	396	31.567	35.149	17.238	1.00	28.76
ATOM	2987	CD1	PHE	A	396	32.505	36.041	17.691	1.00	27.09
ATOM	2988	CD2	PHE	A	396	30.540	34.760	18.091	1.00	29.92
ATOM	2989	CE1	PHE	A	396	32.475	36.506	19.012	1.00	30.67
ATOM	2990	CE2	PHE	A	396	30.488	35.228	19.392	1.00	30.26
ATOM	2991	CZ	PHE	A	396	31.451	36.112	19.855	1.00	31.58
ATOM	2992	N	ILE	A	397	33.018	36.271	13.127	1.00	29.00
ATOM	2993	CA	ILE	A	397	33.729	36.054	11.878	1.00	29.41
ATOM	2994	C	ILE	A	397	35.123	35.411	12.098	1.00	29.48
ATOM	2995	O	ILE	A	397	35.741	34.942	11.151	1.00	29.78
ATOM	2996	CB	ILE	A	397	33.821	37.354	11.057	1.00	29.93

ATOM	2997	CG1	ILE	A	397	34.591	38.407	11.809	1.00 29.25
ATOM	2998	CG2	ILE	A	397	32.457	37.835	10.718	1.00 29.75
ATOM	2999	CD1	ILE	A	397	35.269	39.402	10.924	1.00 31.20
ATOM	3000	N	THR	A	398	35.589	35.367	13.339	1.00 29.02
ATOM	3001	CA	THR	A	398	36.754	34.565	13.695	1.00 29.32
ATOM	3002	C	THR	A	398	36.380	33.686	14.866	1.00 29.68
ATOM	3003	O	THR	A	398	35.436	33.977	15.590	1.00 29.46
ATOM	3004	CB	THR	A	398	37.963	35.412	14.114	1.00 29.68
ATOM	3005	OG1	THR	A	398	37.645	36.178	15.304	1.00 29.00
ATOM	3006	CG2	THR	A	398	38.339	36.415	13.020	1.00 28.51
ATOM	3007	N	LYS	A	399	37.143	32.629	15.074	1.00 30.35
ATOM	3008	CA	LYS	A	399	36.885	31.683	16.156	1.00 32.18
ATOM	3009	C	LYS	A	399	38.149	30.867	16.321	1.00 30.94
ATOM	3010	O	LYS	A	399	38.960	30.812	15.422	1.00 30.64
ATOM	3011	CB	LYS	A	399	35.741	30.716	15.802	1.00 33.03
ATOM	3012	CG	LYS	A	399	34.969	31.118	14.547	1.00 39.43
ATOM	3013	CD	LYS	A	399	33.751	30.221	14.171	1.00 44.29
ATOM	3014	CE	LYS	A	399	32.554	31.100	13.683	1.00 45.24
ATOM	3015	NZ	LYS	A	399	31.425	30.316	13.063	1.00 48.22
ATOM	3016	N	GLY	A	400	38.297	30.231	17.468	1.00 30.34
ATOM	3017	CA	GLY	A	400	39.430	29.389	17.734	1.00 30.41
ATOM	3018	C	GLY	A	400	39.998	29.650	19.130	1.00 31.49
ATOM	3019	O	GLY	A	400	39.655	30.639	19.811	1.00 29.63
ATOM	3020	N	THR	A	401	40.858	28.738	19.558	1.00 31.81
ATOM	3021	CA	THR	A	401	41.543	28.879	20.828	1.00 34.07
ATOM	3022	C	THR	A	401	42.763	29.832	20.740	1.00 32.71
ATOM	3023	O	THR	A	401	43.892	29.401	20.778	1.00 34.00
ATOM	3024	CB	THR	A	401	41.978	27.494	21.314	1.00 34.50
ATOM	3025	OG1	THR	A	401	40.812	26.676	21.574	1.00 39.26
ATOM	3026	CG2	THR	A	401	42.610	27.608	22.641	1.00 36.18
ATOM	3027	N	TRP	A	402	42.508	31.126	20.642	1.00 30.65
ATOM	3028	CA	TRP	A	402	43.548	32.138	20.576	1.00 28.93
ATOM	3029	C	TRP	A	402	42.723	33.392	20.565	1.00 27.54
ATOM	3030	O	TRP	A	402	41.507	33.307	20.544	1.00 25.60
ATOM	3031	CB	TRP	A	402	44.383	32.037	19.298	1.00 28.72
ATOM	3032	CG	TRP	A	402	43.607	31.774	18.069	1.00 29.95
ATOM	3033	CD1	TRP	A	402	43.274	30.538	17.553	1.00 31.24
ATOM	3034	CD2	TRP	A	402	43.058	32.735	17.160	1.00 30.14
ATOM	3035	NE1	TRP	A	402	42.541	30.686	16.405	1.00 29.78
ATOM	3036	CE2	TRP	A	402	42.397	32.017	16.133	1.00 30.91
ATOM	3037	CE3	TRP	A	402	43.042	34.122	17.113	1.00 30.21
ATOM	3038	CZ2	TRP	A	402	41.723	32.643	15.094	1.00 30.88
ATOM	3039	CZ3	TRP	A	402	42.385	34.744	16.073	1.00 31.74
ATOM	3040	CH2	TRP	A	402	41.730	34.008	15.077	1.00 30.37
ATOM	3041	N	GLU	A	403	43.325	34.564	20.491	1.00 27.23
ATOM	3042	CA	GLU	A	403	42.468	35.748	20.447	1.00 26.73
ATOM	3043	C	GLU	A	403	42.904	36.792	19.498	1.00 25.83
ATOM	3044	O	GLU	A	403	44.103	36.972	19.227	1.00 24.50
ATOM	3045	CB	GLU	A	403	42.383	36.461	21.830	1.00 27.45
ATOM	3046	CG	GLU	A	403	42.176	35.552	23.036	1.00 28.63
ATOM	3047	CD	GLU	A	403	41.798	36.314	24.299	1.00 31.80
ATOM	3048	OE1	GLU	A	403	42.453	37.326	24.598	1.00 30.89
ATOM	3049	OE2	GLU	A	403	40.842	35.882	24.992	1.00 36.19
ATOM	3050	N	VAL	A	404	41.899	37.558	19.077	1.00 25.24
ATOM	3051	CA	VAL	A	404	42.127	38.736	18.314	1.00 24.95
ATOM	3052	C	VAL	A	404	42.569	39.806	19.296	1.00 26.20
ATOM	3053	O	VAL	A	404	41.944	39.991	20.353	1.00 25.92
ATOM	3054	CB	VAL	A	404	40.908	39.172	17.633	1.00 24.47
ATOM	3055	CG1	VAL	A	404	41.217	40.371	16.843	1.00 26.01
ATOM	3056	CG2	VAL	A	404	40.379	38.055	16.711	1.00 25.01
ATOM	3057	N	ILE	A	405	43.646	40.501	18.960	1.00 26.33
ATOM	3058	CA	ILE	A	405	44.216	41.481	19.848	1.00 27.21
ATOM	3059	C	ILE	A	405	43.658	42.828	19.568	1.00 26.94
ATOM	3060	O	ILE	A	405	43.341	43.569	20.467	1.00 27.10
ATOM	3061	CB	ILE	A	405	45.726	41.499	19.685	1.00 28.08
ATOM	3062	CG1	ILE	A	405	46.290	40.270	20.389	1.00 29.19
ATOM	3063	CG2	ILE	A	405	46.301	42.773	20.334	1.00 29.53
ATOM	3064	CD1	ILE	A	405	47.238	39.565	19.592	1.00 32.57
ATOM	3065	N	GLY	A	406	43.505	43.133	18.299	1.00 26.78
ATOM	3066	CA	GLY	A	406	42.928	44.393	17.909	1.00 26.62

ATOM	3067	C	GLY	A	406	42.486	44.334	16.460	1.00	26.29
ATOM	3068	O	GLY	A	406	43.010	43.541	15.673	1.00	26.04
ATOM	3069	N	ILE	A	407	41.493	45.141	16.126	1.00	25.77
ATOM	3070	CA	ILE	A	407	41.097	45.320	14.747	1.00	27.03
ATOM	3071	C	ILE	A	407	41.827	46.578	14.245	1.00	27.04
ATOM	3072	O	ILE	A	407	41.705	47.609	14.874	1.00	25.76
ATOM	3073	CB	ILE	A	407	39.593	45.587	14.689	1.00	26.94
ATOM	3074	CG1	ILE	A	407	38.838	44.334	15.103	1.00	27.00
ATOM	3075	CG2	ILE	A	407	39.227	46.096	13.298	1.00	26.67
ATOM	3076	CD1	ILE	A	407	37.368	44.598	15.531	1.00	27.52
ATOM	3077	N	GLU	A	408	42.507	46.509	13.099	1.00	27.34
ATOM	3078	CA	GLU	A	408	43.382	47.617	12.656	1.00	27.57
ATOM	3079	C	GLU	A	408	42.929	48.440	11.473	1.00	27.19
ATOM	3080	O	GLU	A	408	43.285	49.590	11.350	1.00	26.59
ATOM	3081	CB	GLU	A	408	44.748	47.060	12.328	1.00	27.48
ATOM	3082	CG	GLU	A	408	45.292	46.188	13.431	1.00	28.71
ATOM	3083	CD	GLU	A	408	45.563	46.968	14.691	1.00	29.19
ATOM	3084	OE1	GLU	A	408	46.036	48.123	14.625	1.00	33.20
ATOM	3085	OE2	GLU	A	408	45.311	46.411	15.740	1.00	32.03
ATOM	3086	N	ALA	A	409	42.171	47.829	10.583	1.00	27.17
ATOM	3087	CA	ALA	A	409	41.609	48.561	9.464	1.00	27.43
ATOM	3088	C	ALA	A	409	40.409	47.836	8.841	1.00	28.16
ATOM	3089	O	ALA	A	409	40.258	46.600	8.909	1.00	27.79
ATOM	3090	CB	ALA	A	409	42.649	48.820	8.448	1.00	26.95
ATOM	3091	N	LEU	A	410	39.587	48.625	8.187	1.00	29.93
ATOM	3092	CA	LEU	A	410	38.356	48.130	7.595	1.00	31.53
ATOM	3093	C	LEU	A	410	38.122	48.796	6.276	1.00	31.83
ATOM	3094	O	LEU	A	410	38.068	50.000	6.214	1.00	30.83
ATOM	3095	CB	LEU	A	410	37.213	48.493	8.515	1.00	31.79
ATOM	3096	CG	LEU	A	410	35.865	47.763	8.429	1.00	34.75
ATOM	3097	CD1	LEU	A	410	34.773	48.737	8.020	1.00	34.78
ATOM	3098	CD2	LEU	A	410	35.860	46.511	7.533	1.00	34.05
ATOM	3099	N	THR	A	411	38.011	48.011	5.213	1.00	33.31
ATOM	3100	CA	THR	A	411	37.615	48.548	3.918	1.00	34.38
ATOM	3101	C	THR	A	411	36.421	47.729	3.500	1.00	34.97
ATOM	3102	O	THR	A	411	36.029	46.811	4.222	1.00	34.40
ATOM	3103	CB	THR	A	411	38.706	48.343	2.869	1.00	34.65
ATOM	3104	OG1	THR	A	411	38.923	46.934	2.726	1.00	35.94
ATOM	3105	CG2	THR	A	411	40.014	48.894	3.335	1.00	35.71
ATOM	3106	N	SER	A	412	35.905	48.016	2.299	1.00	36.01
ATOM	3107	CA	SER	A	412	34.772	47.309	1.697	1.00	36.64
ATOM	3108	C	SER	A	412	34.877	45.792	1.670	1.00	36.51
ATOM	3109	O	SER	A	412	33.891	45.081	1.952	1.00	37.08
ATOM	3110	CB	SER	A	412	34.616	47.740	0.231	1.00	37.15
ATOM	3111	OG	SER	A	412	34.192	49.076	0.121	1.00	38.14
ATOM	3112	N	ASP	A	413	36.054	45.322	1.275	1.00	35.36
ATOM	3113	CA	ASP	A	413	36.320	43.913	1.011	1.00	36.07
ATOM	3114	C	ASP	A	413	37.089	43.196	2.097	1.00	34.65
ATOM	3115	O	ASP	A	413	37.116	41.966	2.130	1.00	34.82
ATOM	3116	CB	ASP	A	413	37.122	43.802	-0.290	1.00	36.80
ATOM	3117	CG	ASP	A	413	36.506	44.618	-1.427	1.00	40.03
ATOM	3118	OD1	ASP	A	413	35.273	44.524	-1.685	1.00	42.94
ATOM	3119	OD2	ASP	A	413	37.176	45.405	-2.109	1.00	43.99
ATOM	3120	N	TYR	A	414	37.740	43.946	2.977	1.00	33.46
ATOM	3121	CA	TYR	A	414	38.603	43.310	3.950	1.00	32.77
ATOM	3122	C	TYR	A	414	38.612	43.975	5.315	1.00	30.84
ATOM	3123	O	TYR	A	414	38.589	45.206	5.422	1.00	31.66
ATOM	3124	CB	TYR	A	414	40.051	43.363	3.422	1.00	33.72
ATOM	3125	CG	TYR	A	414	40.316	42.543	2.178	1.00	36.47
ATOM	3126	CD1	TYR	A	414	40.564	41.183	2.273	1.00	40.26
ATOM	3127	CD2	TYR	A	414	40.369	43.137	0.915	1.00	37.42
ATOM	3128	CE1	TYR	A	414	40.822	40.427	1.159	1.00	39.48
ATOM	3129	CE2	TYR	A	414	40.629	42.385	-0.221	1.00	38.74
ATOM	3130	CZ	TYR	A	414	40.848	41.021	-0.086	1.00	40.96
ATOM	3131	OH	TYR	A	414	41.112	40.217	-1.184	1.00	45.05
ATOM	3132	N	LEU	A	415	38.613	43.155	6.351	1.00	28.44
ATOM	3133	CA	LEU	A	415	38.906	43.631	7.682	1.00	27.58
ATOM	3134	C	LEU	A	415	40.332	43.153	8.016	1.00	27.60
ATOM	3135	O	LEU	A	415	40.671	41.994	7.804	1.00	26.61
ATOM	3136	CB	LEU	A	415	37.923	43.082	8.698	1.00	27.16

ATOM	3137	CG	LEU	A	415	38.089	43.643	10.096	1.00 26.32
ATOM	3138	CD1	LEU	A	415	36.785	43.538	10.868	1.00 26.01
ATOM	3139	CD2	LEU	A	415	39.212	42.913	10.798	1.00 24.32
ATOM	3140	N	TYR	A	416	41.169	44.047	8.541	1.00 27.81
ATOM	3141	CA	TYR	A	416	42.513	43.648	8.909	1.00 27.67
ATOM	3142	C	TYR	A	416	42.594	43.578	10.447	1.00 27.84
ATOM	3143	O	TYR	A	416	41.948	44.334	11.150	1.00 28.65
ATOM	3144	CB	TYR	A	416	43.530	44.631	8.325	1.00 27.67
ATOM	3145	CG	TYR	A	416	43.603	44.705	6.801	1.00 26.27
ATOM	3146	CD1	TYR	A	416	42.648	45.398	6.065	1.00 24.50
ATOM	3147	CD2	TYR	A	416	44.555	44.110	6.103	1.00 26.34
ATOM	3148	CE1	TYR	A	416	42.734	45.514	4.695	1.00 26.01
ATOM	3149	CE2	TYR	A	416	44.730	44.204	4.747	1.00 26.06
ATOM	3150	CZ	TYR	A	416	43.772	44.914	4.046	1.00 26.01
ATOM	3151	OH	TYR	A	416	43.840	44.993	2.696	1.00 34.51
ATOM	3152	N	TYR	A	417	43.374	42.651	10.976	1.00 27.82
ATOM	3153	CA	TYR	A	417	43.477	42.514	12.420	1.00 26.63
ATOM	3154	C	TYR	A	417	44.745	41.820	12.866	1.00 26.21
ATOM	3155	O	TYR	A	417	45.447	41.191	12.063	1.00 24.79
ATOM	3156	CB	TYR	A	417	42.258	41.763	12.991	1.00 26.04
ATOM	3157	CG	TYR	A	417	42.222	40.301	12.668	1.00 24.88
ATOM	3158	CD1	TYR	A	417	41.636	39.838	11.495	1.00 26.75
ATOM	3159	CD2	TYR	A	417	42.739	39.372	13.549	1.00 22.61
ATOM	3160	CE1	TYR	A	417	41.588	38.450	11.216	1.00 25.54
ATOM	3161	CE2	TYR	A	417	42.728	38.056	13.274	1.00 22.53
ATOM	3162	CZ	TYR	A	417	42.152	37.586	12.106	1.00 23.32
ATOM	3163	OH	TYR	A	417	42.133	36.225	11.888	1.00 20.94
ATOM	3164	N	ILE	A	418	45.014	41.940	14.176	1.00 26.21
ATOM	3165	CA	ILE	A	418	46.177	41.339	14.811	1.00 25.01
ATOM	3166	C	ILE	A	418	45.748	40.303	15.767	1.00 24.88
ATOM	3167	O	ILE	A	418	44.818	40.526	16.547	1.00 25.94
ATOM	3168	CB	ILE	A	418	47.000	42.390	15.518	1.00 25.33
ATOM	3169	CG1	ILE	A	418	47.674	43.234	14.470	1.00 28.85
ATOM	3170	CG2	ILE	A	418	48.059	41.769	16.379	1.00 24.12
ATOM	3171	CD1	ILE	A	418	48.540	44.194	15.030	1.00 31.68
ATOM	3172	N	SER	A	419	46.420	39.155	15.743	1.00 24.26
ATOM	3173	CA	SER	A	419	46.106	38.103	16.678	1.00 25.53
ATOM	3174	C	SER	A	419	47.313	37.280	17.061	1.00 25.14
ATOM	3175	O	SER	A	419	48.396	37.373	16.451	1.00 25.43
ATOM	3176	CB	SER	A	419	45.066	37.149	16.081	1.00 26.23
ATOM	3177	OG	SER	A	419	45.697	36.205	15.211	1.00 28.19
ATOM	3178	N	ASN	A	420	47.099	36.430	18.042	1.00 25.39
ATOM	3179	CA	ASN	A	420	48.130	35.491	18.489	1.00 26.17
ATOM	3180	C	ASN	A	420	47.898	34.036	18.027	1.00 26.94
ATOM	3181	O	ASN	A	420	48.406	33.088	18.641	1.00 27.30
ATOM	3182	CB	ASN	A	420	48.376	35.601	20.035	1.00 25.12
ATOM	3183	CG	ASN	A	420	47.212	35.187	20.883	1.00 24.08
ATOM	3184	OD1	ASN	A	420	47.257	35.303	22.141	1.00 25.35
ATOM	3185	ND2	ASN	A	420	46.176	34.692	20.269	1.00 19.89
ATOM	3186	N	GLU	A	421	47.169	33.861	16.920	1.00 28.64
ATOM	3187	CA	GLU	A	421	46.899	32.514	16.372	1.00 29.10
ATOM	3188	C	GLU	A	421	48.151	31.761	15.959	1.00 29.52
ATOM	3189	O	GLU	A	421	48.269	30.590	16.247	1.00 29.85
ATOM	3190	CB	GLU	A	421	45.980	32.604	15.141	1.00 29.42
ATOM	3191	CG	GLU	A	421	45.615	31.262	14.536	1.00 29.34
ATOM	3192	CD	GLU	A	421	44.558	31.362	13.432	1.00 33.30
ATOM	3193	OE1	GLU	A	421	44.398	32.432	12.827	1.00 32.10
ATOM	3194	OE2	GLU	A	421	43.872	30.354	13.176	1.00 36.08
ATOM	3195	N	TYR	A	422	49.081	32.435	15.287	1.00 30.59
ATOM	3196	CA	TYR	A	422	50.233	31.754	14.681	1.00 31.98
ATOM	3197	C	TYR	A	422	50.999	30.846	15.642	1.00 31.87
ATOM	3198	O	TYR	A	422	51.506	31.287	16.655	1.00 31.13
ATOM	3199	CB	TYR	A	422	51.212	32.768	14.018	1.00 32.51
ATOM	3200	CG	TYR	A	422	52.199	32.109	13.069	1.00 35.45
ATOM	3201	CD1	TYR	A	422	51.754	31.303	12.014	1.00 39.38
ATOM	3202	CD2	TYR	A	422	53.568	32.294	13.200	1.00 38.76
ATOM	3203	CE1	TYR	A	422	52.649	30.698	11.126	1.00 40.25
ATOM	3204	CE2	TYR	A	422	54.476	31.674	12.306	1.00 39.86
ATOM	3205	CZ	TYR	A	422	53.997	30.881	11.287	1.00 39.55
ATOM	3206	OH	TYR	A	422	54.860	30.275	10.416	1.00 43.28

ATOM	3207	N	LYS	A	423	51.042	29.566	15.305	1.00	32.75
ATOM	3208	CA	LYS	A	423	51.821	28.576	16.015	1.00	33.66
ATOM	3209	C	LYS	A	423	51.305	28.368	17.404	1.00	33.06
ATOM	3210	O	LYS	A	423	51.957	27.749	18.205	1.00	32.45
ATOM	3211	CB	LYS	A	423	53.298	28.989	16.096	1.00	34.71
ATOM	3212	CG	LYS	A	423	54.060	29.012	14.786	1.00	38.92
ATOM	3213	CD	LYS	A	423	55.606	28.785	15.070	1.00	44.73
ATOM	3214	CE	LYS	A	423	56.503	28.952	13.824	1.00	47.80
ATOM	3215	NZ	LYS	A	423	57.976	28.612	14.100	1.00	48.84
ATOM	3216	N	GLY	A	424	50.128	28.901	17.706	1.00	33.60
ATOM	3217	CA	GLY	A	424	49.582	28.755	19.043	1.00	32.49
ATOM	3218	C	GLY	A	424	50.375	29.503	20.116	1.00	32.12
ATOM	3219	O	GLY	A	424	50.240	29.197	21.286	1.00	31.47
ATOM	3220	N	MET	A	425	51.202	30.468	19.720	1.00	31.65
ATOM	3221	CA	MET	A	425	52.039	31.210	20.656	1.00	31.13
ATOM	3222	C	MET	A	425	51.326	32.484	21.169	1.00	29.99
ATOM	3223	O	MET	A	425	51.157	33.469	20.452	1.00	28.28
ATOM	3224	CB	MET	A	425	53.362	31.533	19.979	1.00	32.30
ATOM	3225	CG	MET	A	425	54.366	30.328	19.854	1.00	34.67
ATOM	3226	SD	MET	A	425	55.791	30.781	18.773	1.00	43.19
ATOM	3227	CE	MET	A	425	56.752	31.697	19.859	1.00	40.54
ATOM	3228	N	PRO	A	426	50.842	32.463	22.404	1.00	29.14
ATOM	3229	CA	PRO	A	426	50.045	33.599	22.894	1.00	29.32
ATOM	3230	C	PRO	A	426	50.830	34.917	22.991	1.00	28.68
ATOM	3231	O	PRO	A	426	50.261	36.028	22.904	1.00	28.13
ATOM	3232	CB	PRO	A	426	49.586	33.123	24.255	1.00	30.45
ATOM	3233	CG	PRO	A	426	49.746	31.593	24.176	1.00	30.82
ATOM	3234	CD	PRO	A	426	50.957	31.390	23.398	1.00	28.81
ATOM	3235	N	GLY	A	427	52.137	34.794	23.123	1.00	27.82
ATOM	3236	CA	GLY	A	427	53.011	35.949	23.152	1.00	27.65
ATOM	3237	C	GLY	A	427	53.544	36.321	21.800	1.00	28.12
ATOM	3238	O	GLY	A	427	54.519	37.026	21.718	1.00	28.43
ATOM	3239	N	GLY	A	428	52.964	35.779	20.729	1.00	28.74
ATOM	3240	CA	GLY	A	428	53.351	36.140	19.374	1.00	27.66
ATOM	3241	C	GLY	A	428	52.211	36.992	18.856	1.00	27.88
ATOM	3242	O	GLY	A	428	51.126	36.931	19.420	1.00	27.92
ATOM	3243	N	ARG	A	429	52.464	37.790	17.825	1.00	28.39
ATOM	3244	CA	ARG	A	429	51.474	38.656	17.193	1.00	28.66
ATOM	3245	C	ARG	A	429	51.675	38.800	15.676	1.00	27.70
ATOM	3246	O	ARG	A	429	52.789	38.921	15.211	1.00	28.68
ATOM	3247	CB	ARG	A	429	51.538	40.024	17.836	1.00	28.54
ATOM	3248	CG	ARG	A	429	51.222	39.985	19.345	1.00	33.08
ATOM	3249	CD	ARG	A	429	50.733	41.296	19.829	1.00	35.58
ATOM	3250	NE	ARG	A	429	50.247	41.344	21.194	1.00	36.13
ATOM	3251	CZ	ARG	A	429	49.937	42.510	21.785	1.00	39.81
ATOM	3252	NH1	ARG	A	429	50.070	43.661	21.095	1.00	35.49
ATOM	3253	NH2	ARG	A	429	49.505	42.545	23.058	1.00	42.19
ATOM	3254	N	ASN	A	430	50.571	38.825	14.919	1.00	27.66
ATOM	3255	CA	ASN	A	430	50.591	38.901	13.457	1.00	26.33
ATOM	3256	C	ASN	A	430	49.336	39.533	12.861	1.00	26.87
ATOM	3257	O	ASN	A	430	48.218	39.455	13.408	1.00	24.20
ATOM	3258	CB	ASN	A	430	50.767	37.530	12.815	1.00	26.03
ATOM	3259	CG	ASN	A	430	52.193	37.015	12.895	1.00	25.47
ATOM	3260	OD1	ASN	A	430	53.094	37.458	12.154	1.00	24.95
ATOM	3261	ND2	ASN	A	430	52.410	36.087	13.799	1.00	21.72
ATOM	3262	N	LEU	A	431	49.531	40.139	11.697	1.00	26.92
ATOM	3263	CA	LEU	A	431	48.466	40.816	11.003	1.00	27.27
ATOM	3264	C	LEU	A	431	47.802	39.813	10.100	1.00	28.47
ATOM	3265	O	LEU	A	431	48.509	39.063	9.391	1.00	28.34
ATOM	3266	CB	LEU	A	431	49.072	41.867	10.113	1.00	27.86
ATOM	3267	CG	LEU	A	431	48.429	43.221	9.893	1.00	29.78
ATOM	3268	CD1	LEU	A	431	48.707	43.681	8.457	1.00	29.33
ATOM	3269	CD2	LEU	A	431	46.966	43.267	10.216	1.00	30.92
ATOM	3270	N	TYR	A	432	46.464	39.842	10.074	1.00	28.64
ATOM	3271	CA	TYR	A	432	45.667	39.047	9.151	1.00	28.97
ATOM	3272	C	TYR	A	432	44.654	39.899	8.412	1.00	28.90
ATOM	3273	O	TYR	A	432	44.328	40.988	8.841	1.00	29.46
ATOM	3274	CB	TYR	A	432	44.905	37.962	9.881	1.00	29.45
ATOM	3275	CG	TYR	A	432	45.762	36.984	10.591	1.00	28.94
ATOM	3276	CD1	TYR	A	432	46.443	37.348	11.729	1.00	31.85

ATOM	3277	CD2	TYR	A	432	45.861	35.686	10.158	1.00 29.80
ATOM	3278	CE1	TYR	A	432	47.242	36.460	12.407	1.00 30.13
ATOM	3279	CE2	TYR	A	432	46.635	34.774	10.830	1.00 32.21
ATOM	3280	CZ	TYR	A	432	47.333	35.190	11.965	1.00 30.68
ATOM	3281	OH	TYR	A	432	48.103	34.332	12.656	1.00 30.32
ATOM	3282	N	LYS	A	433	44.128	39.334	7.325	1.00 29.50
ATOM	3283	CA	LYS	A	433	43.153	39.919	6.406	1.00 29.94
ATOM	3284	C	LYS	A	433	42.035	38.900	6.339	1.00 30.64
ATOM	3285	O	LYS	A	433	42.328	37.729	6.168	1.00 30.63
ATOM	3286	CB	LYS	A	433	43.728	39.833	4.984	1.00 30.60
ATOM	3287	CG	LYS	A	433	43.650	40.975	4.056	1.00 31.91
ATOM	3288	CD	LYS	A	433	44.453	40.571	2.841	1.00 33.77
ATOM	3289	CE	LYS	A	433	44.114	41.333	1.587	1.00 36.03
ATOM	3290	NZ	LYS	A	433	44.761	40.646	0.431	1.00 35.95
ATOM	3291	N	ILE	A	434	40.784	39.355	6.385	1.00 31.20
ATOM	3292	CA	ILE	A	434	39.617	38.531	6.221	1.00 31.63
ATOM	3293	C	ILE	A	434	38.837	39.076	5.071	1.00 31.51
ATOM	3294	O	ILE	A	434	38.403	40.224	5.107	1.00 31.85
ATOM	3295	CB	ILE	A	434	38.675	38.672	7.412	1.00 32.38
ATOM	3296	CG1	ILE	A	434	39.288	38.134	8.684	1.00 33.28
ATOM	3297	CG2	ILE	A	434	37.413	37.945	7.099	1.00 33.44
ATOM	3298	CD1	ILE	A	434	38.482	38.485	9.933	1.00 35.68
ATOM	3299	N	GLN	A	435	38.580	38.254	4.078	1.00 32.13
ATOM	3300	CA	GLN	A	435	37.756	38.681	2.956	1.00 32.42
ATOM	3301	C	GLN	A	435	36.309	38.729	3.462	1.00 31.87
ATOM	3302	O	GLN	A	435	35.772	37.735	3.981	1.00 31.80
ATOM	3303	CB	GLN	A	435	37.959	37.725	1.773	1.00 33.28
ATOM	3304	CG	GLN	A	435	38.283	38.438	0.474	1.00 37.80
ATOM	3305	CD	GLN	A	435	38.196	37.544	-0.759	1.00 39.65
ATOM	3306	OE1	GLN	A	435	37.661	37.960	-1.787	1.00 43.51
ATOM	3307	NE2	GLN	A	435	38.731	36.352	-0.668	1.00 36.20
ATOM	3308	N	LEU	A	436	35.679	39.892	3.402	1.00 31.45
ATOM	3309	CA	LEU	A	436	34.322	40.019	3.951	1.00 32.16
ATOM	3310	C	LEU	A	436	33.214	39.216	3.211	1.00 33.57
ATOM	3311	O	LEU	A	436	32.222	38.810	3.835	1.00 32.78
ATOM	3312	CB	LEU	A	436	33.967	41.505	4.095	1.00 32.40
ATOM	3313	CG	LEU	A	436	34.958	42.257	5.046	1.00 31.40
ATOM	3314	CD1	LEU	A	436	34.666	43.711	5.103	1.00 33.04
ATOM	3315	CD2	LEU	A	436	34.920	41.684	6.449	1.00 30.51
ATOM	3316	N	SER	A	437	33.418	38.892	1.938	1.00 34.25
ATOM	3317	CA	SER	A	437	32.403	38.123	1.202	1.00 36.72
ATOM	3318	C	SER	A	437	32.508	36.603	1.433	1.00 36.62
ATOM	3319	O	SER	A	437	31.851	35.815	0.739	1.00 40.69
ATOM	3320	CB	SER	A	437	32.516	38.418	-0.282	1.00 36.83
ATOM	3321	OG	SER	A	437	33.806	38.070	-0.709	1.00 38.78
ATOM	3322	N	ASP	A	438	33.393	36.215	2.363	1.00 35.66
ATOM	3323	CA	ASP	A	438	33.577	34.814	2.806	1.00 34.84
ATOM	3324	C	ASP	A	438	34.562	34.703	3.979	1.00 33.83
ATOM	3325	O	ASP	A	438	35.765	34.547	3.790	1.00 33.54
ATOM	3326	CB	ASP	A	438	34.101	33.920	1.684	1.00 34.29
ATOM	3327	CG	ASP	A	438	34.300	32.480	2.139	1.00 33.79
ATOM	3328	OD1	ASP	A	438	34.227	32.222	3.362	1.00 31.81
ATOM	3329	OD2	ASP	A	438	34.513	31.535	1.354	1.00 32.29
ATOM	3330	N	TYR	A	439	34.037	34.660	5.183	1.00 33.43
ATOM	3331	CA	TYR	A	439	34.867	34.735	6.372	1.00 33.14
ATOM	3332	C	TYR	A	439	35.881	33.611	6.504	1.00 33.75
ATOM	3333	O	TYR	A	439	36.804	33.712	7.322	1.00 32.43
ATOM	3334	CB	TYR	A	439	34.009	34.815	7.618	1.00 32.78
ATOM	3335	CG	TYR	A	439	33.032	35.953	7.614	1.00 31.50
ATOM	3336	CD1	TYR	A	439	33.363	37.196	7.084	1.00 29.56
ATOM	3337	CD2	TYR	A	439	31.763	35.773	8.127	1.00 31.06
ATOM	3338	CE1	TYR	A	439	32.453	38.222	7.081	1.00 32.55
ATOM	3339	CE2	TYR	A	439	30.846	36.776	8.107	1.00 32.77
ATOM	3340	CZ	TYR	A	439	31.177	37.994	7.622	1.00 32.72
ATOM	3341	OH	TYR	A	439	30.215	38.969	7.671	1.00 34.45
ATOM	3342	N	THR	A	440	35.743	32.555	5.705	1.00 33.09
ATOM	3343	CA	THR	A	440	36.749	31.515	5.737	1.00 33.93
ATOM	3344	C	THR	A	440	38.011	31.959	5.002	1.00 33.99
ATOM	3345	O	THR	A	440	39.049	31.357	5.164	1.00 34.35
ATOM	3346	CB	THR	A	440	36.222	30.188	5.140	1.00 34.79

ATOM	3347	OG1	THR	A	440	35.854	30.386	3.773	1.00	35.49
ATOM	3348	CG2	THR	A	440	34.914	29.733	5.808	1.00	35.92
ATOM	3349	N	LYS	A	441	37.949	32.994	4.167	1.00	34.58
ATOM	3350	CA	LYS	A	441	39.161	33.419	3.485	1.00	34.94
ATOM	3351	C	LYS	A	441	39.982	34.419	4.316	1.00	34.57
ATOM	3352	O	LYS	A	441	39.780	35.645	4.218	1.00	33.38
ATOM	3353	CB	LYS	A	441	38.843	33.969	2.099	1.00	36.12
ATOM	3354	CG	LYS	A	441	38.246	32.904	1.199	1.00	38.45
ATOM	3355	CD	LYS	A	441	37.943	33.414	-0.196	1.00	42.38
ATOM	3356	CE	LYS	A	441	37.790	32.241	-1.204	1.00	44.53
ATOM	3357	NZ	LYS	A	441	37.079	32.642	-2.444	1.00	44.38
ATOM	3358	N	VAL	A	442	40.918	33.844	5.081	1.00	34.16
ATOM	3359	CA	VAL	A	442	41.807	34.527	6.017	1.00	34.73
ATOM	3360	C	VAL	A	442	43.264	34.386	5.623	1.00	34.50
ATOM	3361	O	VAL	A	442	43.788	33.300	5.575	1.00	34.09
ATOM	3362	CB	VAL	A	442	41.744	33.883	7.405	1.00	34.66
ATOM	3363	CG1	VAL	A	442	42.371	34.805	8.445	1.00	36.89
ATOM	3364	CG2	VAL	A	442	40.351	33.605	7.809	1.00	35.16
ATOM	3365	N	THR	A	443	43.922	35.486	5.338	1.00	34.30
ATOM	3366	CA	THR	A	443	45.312	35.425	4.983	1.00	34.85
ATOM	3367	C	THR	A	443	46.177	35.999	6.132	1.00	34.39
ATOM	3368	O	THR	A	443	45.870	37.053	6.659	1.00	33.87
ATOM	3369	CB	THR	A	443	45.543	36.278	3.734	1.00	34.69
ATOM	3370	OG1	THR	A	443	44.628	35.922	2.700	1.00	36.35
ATOM	3371	CG2	THR	A	443	46.839	35.955	3.151	1.00	37.11
ATOM	3372	N	CYS	A	444	47.238	35.314	6.515	1.00	33.85
ATOM	3373	CA	CYS	A	444	48.191	35.920	7.424	1.00	33.80
ATOM	3374	C	CYS	A	444	49.197	36.741	6.612	1.00	32.96
ATOM	3375	O	CYS	A	444	49.896	36.202	5.763	1.00	33.20
ATOM	3376	CB	CYS	A	444	48.932	34.893	8.256	1.00	34.01
ATOM	3377	SG	CYS	A	444	49.930	35.769	9.498	1.00	35.63
ATOM	3378	N	LEU	A	445	49.259	38.049	6.846	1.00	31.35
ATOM	3379	CA	LEU	A	445	50.115	38.930	6.035	1.00	30.34
ATOM	3380	C	LEU	A	445	51.540	39.101	6.506	1.00	29.68
ATOM	3381	O	LEU	A	445	52.381	39.600	5.755	1.00	29.03
ATOM	3382	CB	LEU	A	445	49.511	40.320	5.989	1.00	30.44
ATOM	3383	CG	LEU	A	445	48.082	40.371	5.441	1.00	31.52
ATOM	3384	CD1	LEU	A	445	47.519	41.766	5.595	1.00	31.49
ATOM	3385	CD2	LEU	A	445	48.031	39.979	3.970	1.00	30.01
ATOM	3386	N	SER	A	446	51.809	38.716	7.751	1.00	28.93
ATOM	3387	CA	SER	A	446	53.115	38.914	8.335	1.00	28.62
ATOM	3388	C	SER	A	446	53.814	37.628	8.738	1.00	29.11
ATOM	3389	O	SER	A	446	55.032	37.622	8.909	1.00	29.02
ATOM	3390	CB	SER	A	446	53.001	39.829	9.553	1.00	27.81
ATOM	3391	OG	SER	A	446	52.252	39.228	10.616	1.00	24.74
ATOM	3392	N	CYS	A	447	53.042	36.569	8.909	1.00	29.85
ATOM	3393	CA	CYS	A	447	53.536	35.330	9.492	1.00	32.67
ATOM	3394	C	CYS	A	447	54.827	34.834	8.884	1.00	33.54
ATOM	3395	O	CYS	A	447	55.682	34.357	9.614	1.00	33.36
ATOM	3396	CB	CYS	A	447	52.484	34.203	9.376	1.00	33.28
ATOM	3397	SG	CYS	A	447	51.032	34.431	10.472	1.00	40.47
ATOM	3398	N	GLU	A	448	54.940	34.924	7.556	1.00	34.86
ATOM	3399	CA	GLU	A	448	56.066	34.346	6.817	1.00	36.63
ATOM	3400	C	GLU	A	448	57.017	35.375	6.270	1.00	36.08
ATOM	3401	O	GLU	A	448	57.845	35.036	5.447	1.00	35.92
ATOM	3402	CB	GLU	A	448	55.592	33.541	5.587	1.00	37.55
ATOM	3403	CG	GLU	A	448	54.507	32.502	5.845	1.00	42.12
ATOM	3404	CD	GLU	A	448	55.086	31.151	6.204	1.00	48.74
ATOM	3405	OE1	GLU	A	448	55.945	31.107	7.129	1.00	50.57
ATOM	3406	OE2	GLU	A	448	54.703	30.139	5.534	1.00	52.73
ATOM	3407	N	LEU	A	449	56.898	36.629	6.673	1.00	34.96
ATOM	3408	CA	LEU	A	449	57.825	37.606	6.149	1.00	34.44
ATOM	3409	C	LEU	A	449	59.294	37.265	6.502	1.00	34.44
ATOM	3410	O	LEU	A	449	60.147	37.251	5.621	1.00	33.97
ATOM	3411	CB	LEU	A	449	57.429	39.023	6.552	1.00	33.23
ATOM	3412	CG	LEU	A	449	56.115	39.457	5.858	1.00	35.54
ATOM	3413	CD1	LEU	A	449	55.677	40.857	6.339	1.00	35.36
ATOM	3414	CD2	LEU	A	449	56.138	39.422	4.295	1.00	34.45
ATOM	3415	N	ASN	A	450	59.586	37.025	7.775	1.00	34.23
ATOM	3416	CA	ASN	A	450	60.928	36.689	8.241	1.00	34.36

ATOM	3417	C	ASN	A	450	60.603	35.979	9.541	1.00	33.70
ATOM	3418	O	ASN	A	450	60.626	36.601	10.586	1.00	31.73
ATOM	3419	CB	ASN	A	450	61.811	37.938	8.517	1.00	35.46
ATOM	3420	CG	ASN	A	450	61.785	39.000	7.379	1.00	39.31
ATOM	3421	OD1	ASN	A	450	62.830	39.335	6.764	1.00	42.36
ATOM	3422	ND2	ASN	A	450	60.612	39.545	7.120	1.00	39.73
ATOM	3423	N	PRO	A	451	60.305	34.684	9.480	1.00	34.50
ATOM	3424	CA	PRO	A	451	59.725	33.963	10.625	1.00	35.42
ATOM	3425	C	PRO	A	451	60.614	33.694	11.792	1.00	35.46
ATOM	3426	O	PRO	A	451	60.088	33.430	12.863	1.00	35.48
ATOM	3427	CB	PRO	A	451	59.318	32.608	10.041	1.00	35.72
ATOM	3428	CG	PRO	A	451	59.652	32.646	8.570	1.00	34.74
ATOM	3429	CD	PRO	A	451	60.536	33.793	8.322	1.00	35.07
ATOM	3430	N	GLU	A	452	61.918	33.728	11.606	1.00	36.10
ATOM	3431	CA	GLU	A	452	62.809	33.444	12.697	1.00	37.19
ATOM	3432	C	GLU	A	452	63.138	34.796	13.333	1.00	35.91
ATOM	3433	O	GLU	A	452	63.356	34.883	14.500	1.00	36.70
ATOM	3434	CB	GLU	A	452	64.066	32.697	12.202	1.00	38.95
ATOM	3435	CG	GLU	A	452	63.927	31.164	12.122	1.00	44.32
ATOM	3436	CD	GLU	A	452	63.457	30.631	10.758	1.00	51.15
ATOM	3437	OE1	GLU	A	452	62.294	30.923	10.354	1.00	53.26
ATOM	3438	OE2	GLU	A	452	64.256	29.892	10.089	1.00	56.31
ATOM	3439	N	ARG	A	453	63.120	35.878	12.579	1.00	34.02
ATOM	3440	CA	ARG	A	453	63.451	37.157	13.189	1.00	32.24
ATOM	3441	C	ARG	A	453	62.219	37.953	13.712	1.00	31.58
ATOM	3442	O	ARG	A	453	62.326	38.802	14.597	1.00	30.26
ATOM	3443	CB	ARG	A	453	64.186	38.017	12.182	1.00	31.61
ATOM	3444	CG	ARG	A	453	64.295	39.448	12.600	1.00	32.11
ATOM	3445	CD	ARG	A	453	65.075	40.301	11.626	1.00	33.78
ATOM	3446	NE	ARG	A	453	65.181	41.697	12.055	1.00	32.76
ATOM	3447	CZ	ARG	A	453	65.862	42.602	11.380	1.00	32.63
ATOM	3448	NH1	ARG	A	453	66.501	42.213	10.296	1.00	29.81
ATOM	3449	NH2	ARG	A	453	65.951	43.881	11.793	1.00	31.21
ATOM	3450	N	CYS	A	454	61.061	37.664	13.147	1.00	30.42
ATOM	3451	CA	CYS	A	454	59.876	38.453	13.396	1.00	29.70
ATOM	3452	C	CYS	A	454	58.670	37.649	13.738	1.00	29.35
ATOM	3453	O	CYS	A	454	58.098	37.039	12.867	1.00	30.20
ATOM	3454	CB	CYS	A	454	59.579	39.262	12.163	1.00	29.27
ATOM	3455	SG	CYS	A	454	60.790	40.536	11.951	1.00	29.63
ATOM	3456	N	GLN	A	455	58.269	37.693	15.005	1.00	29.22
ATOM	3457	CA	GLN	A	455	57.087	36.993	15.516	1.00	29.85
ATOM	3458	C	GLN	A	455	56.162	37.906	16.337	1.00	28.56
ATOM	3459	O	GLN	A	455	55.245	37.423	16.997	1.00	29.64
ATOM	3460	CB	GLN	A	455	57.493	35.796	16.368	1.00	28.83
ATOM	3461	CG	GLN	A	455	58.178	34.676	15.550	1.00	30.86
ATOM	3462	CD	GLN	A	455	59.028	33.712	16.408	1.00	33.92
ATOM	3463	OE1	GLN	A	455	58.881	33.616	17.639	1.00	36.61
ATOM	3464	NE2	GLN	A	455	59.909	33.011	15.756	1.00	38.34
ATOM	3465	N	TYR	A	456	56.381	39.216	16.289	1.00	27.49
ATOM	3466	CA	TYR	A	456	55.570	40.163	17.053	1.00	26.38
ATOM	3467	C	TYR	A	456	55.436	41.437	16.272	1.00	25.33
ATOM	3468	O	TYR	A	456	56.342	42.254	16.278	1.00	26.26
ATOM	3469	CB	TYR	A	456	56.265	40.497	18.391	1.00	26.47
ATOM	3470	CG	TYR	A	456	55.357	41.032	19.483	1.00	23.54
ATOM	3471	CD1	TYR	A	456	54.969	42.361	19.514	1.00	22.01
ATOM	3472	CD2	TYR	A	456	54.938	40.205	20.510	1.00	22.91
ATOM	3473	CE1	TYR	A	456	54.181	42.876	20.588	1.00	23.76
ATOM	3474	CE2	TYR	A	456	54.126	40.684	21.551	1.00	24.99
ATOM	3475	CZ	TYR	A	456	53.755	42.019	21.581	1.00	24.52
ATOM	3476	OH	TYR	A	456	52.958	42.443	22.623	1.00	32.80
ATOM	3477	N	TYR	A	457	54.298	41.627	15.643	1.00	24.21
ATOM	3478	CA	TYR	A	457	54.063	42.767	14.773	1.00	23.89
ATOM	3479	C	TYR	A	457	52.990	43.731	15.313	1.00	24.27
ATOM	3480	O	TYR	A	457	52.067	43.282	16.028	1.00	23.48
ATOM	3481	CB	TYR	A	457	53.524	42.197	13.454	1.00	24.73
ATOM	3482	CG	TYR	A	457	54.585	41.559	12.548	1.00	25.26
ATOM	3483	CD1	TYR	A	457	55.297	42.334	11.675	1.00	25.50
ATOM	3484	CD2	TYR	A	457	54.812	40.204	12.549	1.00	25.73
ATOM	3485	CE1	TYR	A	457	56.237	41.807	10.827	1.00	29.31
ATOM	3486	CE2	TYR	A	457	55.769	39.642	11.701	1.00	26.68

ATOM	3487	CZ	TYR	A	457	56.470	40.468	10.835	1.00	26.22
ATOM	3488	OH	TYR	A	457	57.408	40.006	9.979	1.00	28.29
ATOM	3489	N	SER	A	458	53.151	45.028	15.011	1.00	23.41
ATOM	3490	CA	SER	A	458	52.075	45.987	15.118	1.00	24.13
ATOM	3491	C	SER	A	458	52.007	46.589	13.738	1.00	23.05
ATOM	3492	O	SER	A	458	52.877	46.344	12.906	1.00	21.75
ATOM	3493	CB	SER	A	458	52.258	47.064	16.189	1.00	23.41
ATOM	3494	OG	SER	A	458	53.293	47.909	15.806	1.00	26.48
ATOM	3495	N	VAL	A	459	50.981	47.385	13.484	1.00	23.05
ATOM	3496	CA	VAL	A	459	50.780	47.908	12.144	1.00	22.91
ATOM	3497	C	VAL	A	459	50.197	49.285	12.149	1.00	23.22
ATOM	3498	O	VAL	A	459	49.449	49.613	13.051	1.00	20.96
ATOM	3499	CB	VAL	A	459	49.782	47.064	11.372	1.00	23.35
ATOM	3500	CG1	VAL	A	459	48.322	47.173	11.992	1.00	20.67
ATOM	3501	CG2	VAL	A	459	49.776	47.518	9.941	1.00	23.93
ATOM	3502	N	SER	A	460	50.554	50.081	11.132	1.00	23.90
ATOM	3503	CA	SER	A	460	50.002	51.411	10.922	1.00	24.93
ATOM	3504	C	SER	A	460	49.569	51.602	9.488	1.00	25.93
ATOM	3505	O	SER	A	460	50.391	51.569	8.550	1.00	22.55
ATOM	3506	CB	SER	A	460	50.985	52.509	11.301	1.00	25.72
ATOM	3507	OG	SER	A	460	50.539	53.740	10.742	1.00	27.67
ATOM	3508	N	PHE	A	461	48.252	51.754	9.329	1.00	26.78
ATOM	3509	CA	PHE	A	461	47.633	51.920	8.026	1.00	27.31
ATOM	3510	C	PHE	A	461	47.418	53.377	7.628	1.00	28.08
ATOM	3511	O	PHE	A	461	47.054	54.190	8.443	1.00	28.52
ATOM	3512	CB	PHE	A	461	46.273	51.252	8.034	1.00	26.92
ATOM	3513	CG	PHE	A	461	46.299	49.777	7.822	1.00	25.25
ATOM	3514	CD1	PHE	A	461	46.201	49.241	6.552	1.00	27.14
ATOM	3515	CD2	PHE	A	461	46.327	48.920	8.894	1.00	27.63
ATOM	3516	CE1	PHE	A	461	46.191	47.888	6.350	1.00	25.35
ATOM	3517	CE2	PHE	A	461	46.329	47.570	8.713	1.00	25.76
ATOM	3518	CZ	PHE	A	461	46.271	47.045	7.447	1.00	28.77
ATOM	3519	N	SER	A	462	47.631	53.691	6.347	1.00	29.97
ATOM	3520	CA	SER	A	462	47.246	54.988	5.778	1.00	30.27
ATOM	3521	C	SER	A	462	45.723	55.127	5.749	1.00	31.48
ATOM	3522	O	SER	A	462	44.993	54.176	5.972	1.00	30.72
ATOM	3523	CB	SER	A	462	47.737	55.097	4.329	1.00	30.83
ATOM	3524	OG	SER	A	462	46.950	54.280	3.490	1.00	28.63
ATOM	3525	N	LYS	A	463	45.240	56.313	5.429	1.00	33.73
ATOM	3526	CA	LYS	A	463	43.799	56.526	5.293	1.00	35.96
ATOM	3527	C	LYS	A	463	43.305	55.681	4.120	1.00	36.37
ATOM	3528	O	LYS	A	463	44.018	55.519	3.105	1.00	38.14
ATOM	3529	CB	LYS	A	463	43.492	58.014	5.103	1.00	36.63
ATOM	3530	CG	LYS	A	463	44.403	58.902	5.944	1.00	39.71
ATOM	3531	CD	LYS	A	463	43.822	60.236	6.432	1.00	45.02
ATOM	3532	CE	LYS	A	463	44.530	60.660	7.780	1.00	48.04
ATOM	3533	NZ	LYS	A	463	44.959	62.107	7.840	1.00	48.63
ATOM	3534	N	GLU	A	464	42.132	55.080	4.269	1.00	35.63
ATOM	3535	CA	GLU	A	464	41.549	54.257	3.209	1.00	35.32
ATOM	3536	C	GLU	A	464	42.350	52.989	3.114	1.00	33.42
ATOM	3537	O	GLU	A	464	42.107	52.137	2.259	1.00	32.17
ATOM	3538	CB	GLU	A	464	41.473	54.978	1.849	1.00	36.66
ATOM	3539	CG	GLU	A	464	40.178	55.783	1.625	1.00	41.82
ATOM	3540	CD	GLU	A	464	38.919	54.943	1.348	1.00	49.22
ATOM	3541	OE1	GLU	A	464	38.556	54.770	0.164	1.00	50.56
ATOM	3542	OE2	GLU	A	464	38.259	54.483	2.310	1.00	53.57
ATOM	3543	N	ALA	A	465	43.302	52.871	4.031	1.00	32.42
ATOM	3544	CA	ALA	A	465	44.115	51.683	4.130	1.00	31.60
ATOM	3545	C	ALA	A	465	44.746	51.223	2.805	1.00	30.62
ATOM	3546	O	ALA	A	465	44.907	50.035	2.563	1.00	27.72
ATOM	3547	CB	ALA	A	465	43.279	50.550	4.737	1.00	32.19
ATOM	3548	N	LYS	A	466	45.108	52.139	1.934	1.00	31.42
ATOM	3549	CA	LYS	A	466	45.748	51.643	0.743	1.00	32.12
ATOM	3550	C	LYS	A	466	47.192	51.168	1.038	1.00	31.32
ATOM	3551	O	LYS	A	466	47.687	50.345	0.299	1.00	30.10
ATOM	3552	CB	LYS	A	466	45.656	52.630	-0.428	1.00	33.58
ATOM	3553	CG	LYS	A	466	44.196	52.978	-0.869	1.00	38.27
ATOM	3554	CD	LYS	A	466	43.427	51.805	-1.556	1.00	43.92
ATOM	3555	CE	LYS	A	466	41.904	52.062	-1.554	1.00	47.17
ATOM	3556	NZ	LYS	A	466	41.126	51.288	-2.589	1.00	48.39

ATOM	3557	N	TYR	A	467	47.827	51.635	2.127	1.00 31.47
ATOM	3558	CA	TYR	A	467	49.198	51.263	2.498	1.00 30.89
ATOM	3559	C	TYR	A	467	49.333	50.950	4.001	1.00 30.71
ATOM	3560	O	TYR	A	467	48.572	51.497	4.829	1.00 30.78
ATOM	3561	CB	TYR	A	467	50.099	52.423	2.122	1.00 31.64
ATOM	3562	CG	TYR	A	467	50.056	52.721	0.646	1.00 31.24
ATOM	3563	CD1	TYR	A	467	50.704	51.896	-0.260	1.00 32.67
ATOM	3564	CD2	TYR	A	467	49.383	53.822	0.159	1.00 30.99
ATOM	3565	CE1	TYR	A	467	50.672	52.162	-1.614	1.00 34.60
ATOM	3566	CE2	TYR	A	467	49.333	54.093	-1.184	1.00 31.48
ATOM	3567	CZ	TYR	A	467	49.976	53.257	-2.072	1.00 34.16
ATOM	3568	OH	TYR	A	467	49.927	53.534	-3.412	1.00 34.89
ATOM	3569	N	TYR	A	468	50.252	50.044	4.343	1.00 29.12
ATOM	3570	CA	TYR	A	468	50.549	49.763	5.731	1.00 28.87
ATOM	3571	C	TYR	A	468	52.062	49.651	6.052	1.00 28.68
ATOM	3572	O	TYR	A	468	52.877	49.243	5.210	1.00 28.35
ATOM	3573	CB	TYR	A	468	49.772	48.537	6.288	1.00 29.07
ATOM	3574	CG	TYR	A	468	49.899	47.194	5.553	1.00 28.06
ATOM	3575	CD1	TYR	A	468	49.122	46.912	4.438	1.00 28.62
ATOM	3576	CD2	TYR	A	468	50.698	46.193	6.045	1.00 26.47
ATOM	3577	CE1	TYR	A	468	49.194	45.691	3.813	1.00 28.32
ATOM	3578	CE2	TYR	A	468	50.782	44.984	5.446	1.00 26.79
ATOM	3579	CZ	TYR	A	468	50.033	44.737	4.311	1.00 28.16
ATOM	3580	OH	TYR	A	468	50.124	43.527	3.688	1.00 29.41
ATOM	3581	N	GLN	A	469	52.412	50.086	7.255	1.00 27.13
ATOM	3582	CA	GLN	A	469	53.763	49.962	7.777	1.00 27.19
ATOM	3583	C	GLN	A	469	53.697	48.856	8.804	1.00 27.67
ATOM	3584	O	GLN	A	469	52.864	48.893	9.715	1.00 26.15
ATOM	3585	CB	GLN	A	469	54.221	51.271	8.435	1.00 27.15
ATOM	3586	CG	GLN	A	469	55.515	51.121	9.271	1.00 27.66
ATOM	3587	CD	GLN	A	469	55.813	52.307	10.219	1.00 29.76
ATOM	3588	OE1	GLN	A	469	54.907	52.829	10.922	1.00 28.34
ATOM	3589	NE2	GLN	A	469	57.074	52.746	10.216	1.00 23.42
ATOM	3590	N	LEU	A	470	54.496	47.825	8.619	1.00 28.25
ATOM	3591	CA	LEU	A	470	54.587	46.804	9.611	1.00 29.45
ATOM	3592	C	LEU	A	470	55.797	47.118	10.459	1.00 30.58
ATOM	3593	O	LEU	A	470	56.836	47.556	9.967	1.00 30.74
ATOM	3594	CB	LEU	A	470	54.777	45.416	8.997	1.00 29.96
ATOM	3595	CG	LEU	A	470	53.477	44.700	8.545	1.00 31.71
ATOM	3596	CD1	LEU	A	470	53.812	43.418	7.817	1.00 32.62
ATOM	3597	CD2	LEU	A	470	52.576	44.404	9.710	1.00 29.84
ATOM	3598	N	ARG	A	471	55.667	46.868	11.740	1.00 32.00
ATOM	3599	CA	ARG	A	471	56.770	47.057	12.635	1.00 33.21
ATOM	3600	C	ARG	A	471	56.856	45.811	13.476	1.00 32.36
ATOM	3601	O	ARG	A	471	55.922	45.448	14.189	1.00 31.00
ATOM	3602	CB	ARG	A	471	56.614	48.363	13.390	1.00 34.66
ATOM	3603	CG	ARG	A	471	55.836	48.362	14.607	1.00 40.62
ATOM	3604	CD	ARG	A	471	56.698	48.373	15.909	1.00 48.15
ATOM	3605	NE	ARG	A	471	55.770	48.361	17.041	1.00 53.40
ATOM	3606	CZ	ARG	A	471	55.725	49.259	18.013	1.00 58.18
ATOM	3607	NH1	ARG	A	471	56.628	50.241	18.094	1.00 61.35
ATOM	3608	NH2	ARG	A	471	54.785	49.148	18.937	1.00 58.39
ATOM	3609	N	CYS	A	472	57.929	45.069	13.232	1.00 31.04
ATOM	3610	CA	CYS	A	472	58.189	43.834	13.942	1.00 31.86
ATOM	3611	C	CYS	A	472	59.049	44.198	15.119	1.00 31.18
ATOM	3612	O	CYS	A	472	59.922	45.056	14.990	1.00 29.72
ATOM	3613	CB	CYS	A	472	58.876	42.844	12.993	1.00 32.72
ATOM	3614	SG	CYS	A	472	60.216	41.804	13.588	1.00 34.36
ATOM	3615	N	SER	A	473	58.755	43.566	16.248	1.00 30.57
ATOM	3616	CA	SER	A	473	59.372	43.858	17.532	1.00 31.00
ATOM	3617	C	SER	A	473	60.270	42.760	18.076	1.00 30.76
ATOM	3618	O	SER	A	473	60.819	42.915	19.159	1.00 32.46
ATOM	3619	CB	SER	A	473	58.260	44.077	18.588	1.00 31.69
ATOM	3620	OG	SER	A	473	57.860	45.417	18.636	1.00 32.84
ATOM	3621	N	GLY	A	474	60.402	41.644	17.385	1.00 30.01
ATOM	3622	CA	GLY	A	474	61.186	40.535	17.887	1.00 29.79
ATOM	3623	C	GLY	A	474	60.725	39.199	17.347	1.00 29.71
ATOM	3624	O	GLY	A	474	59.682	39.128	16.739	1.00 28.91
ATOM	3625	N	PRO	A	475	61.418	38.118	17.679	1.00 29.74
ATOM	3626	CA	PRO	A	475	62.509	38.114	18.663	1.00 30.22

ATOM	3627	C	PRO	A	475	63.829	38.661	18.147	1.00	30.24
ATOM	3628	O	PRO	A	475	64.712	38.778	18.969	1.00	31.04
ATOM	3629	CB	PRO	A	475	62.674	36.609	19.015	1.00	29.67
ATOM	3630	CG	PRO	A	475	61.922	35.843	17.911	1.00	29.65
ATOM	3631	CD	PRO	A	475	61.206	36.800	17.066	1.00	30.13
ATOM	3632	N	GLY	A	476	63.963	38.978	16.855	1.00	29.71
ATOM	3633	CA	GLY	A	476	65.211	39.512	16.314	1.00	29.41
ATOM	3634	C	GLY	A	476	65.119	41.006	16.463	1.00	30.15
ATOM	3635	O	GLY	A	476	64.185	41.506	17.120	1.00	30.30
ATOM	3636	N	LEU	A	477	66.067	41.727	15.882	1.00	29.02
ATOM	3637	CA	LEU	A	477	66.074	43.170	15.928	1.00	28.65
ATOM	3638	C	LEU	A	477	64.868	43.791	15.190	1.00	28.40
ATOM	3639	O	LEU	A	477	64.433	43.304	14.157	1.00	26.15
ATOM	3640	CB	LEU	A	477	67.372	43.679	15.293	1.00	28.42
ATOM	3641	CG	LEU	A	477	68.606	43.457	16.177	1.00	29.87
ATOM	3642	CD1	LEU	A	477	69.808	43.864	15.412	1.00	31.27
ATOM	3643	CD2	LEU	A	477	68.505	44.276	17.417	1.00	32.61
ATOM	3644	N	PRO	A	478	64.337	44.870	15.724	1.00	28.72
ATOM	3645	CA	PRO	A	478	63.171	45.506	15.103	1.00	28.98
ATOM	3646	C	PRO	A	478	63.419	45.825	13.638	1.00	28.98
ATOM	3647	O	PRO	A	478	64.550	46.155	13.244	1.00	27.85
ATOM	3648	CB	PRO	A	478	62.978	46.761	15.941	1.00	28.60
ATOM	3649	CG	PRO	A	478	63.414	46.249	17.350	1.00	29.75
ATOM	3650	CD	PRO	A	478	64.714	45.532	16.984	1.00	29.65
ATOM	3651	N	LEU	A	479	62.338	45.722	12.864	1.00	28.30
ATOM	3652	CA	LEU	A	479	62.375	45.825	11.412	1.00	27.04
ATOM	3653	C	LEU	A	479	61.045	46.453	10.988	1.00	26.54
ATOM	3654	O	LEU	A	479	59.962	45.958	11.325	1.00	23.86
ATOM	3655	CB	LEU	A	479	62.564	44.428	10.862	1.00	27.50
ATOM	3656	CG	LEU	A	479	62.972	44.059	9.438	1.00	28.18
ATOM	3657	CD1	LEU	A	479	61.838	43.399	8.745	1.00	29.02
ATOM	3658	CD2	LEU	A	479	63.598	45.165	8.607	1.00	29.05
ATOM	3659	N	TYR	A	480	61.172	47.592	10.317	1.00	25.53
ATOM	3660	CA	TYR	A	480	60.084	48.394	9.838	1.00	25.57
ATOM	3661	C	TYR	A	480	60.084	48.347	8.311	1.00	25.69
ATOM	3662	O	TYR	A	480	61.123	48.628	7.682	1.00	24.97
ATOM	3663	CB	TYR	A	480	60.307	49.839	10.334	1.00	26.20
ATOM	3664	CG	TYR	A	480	60.366	49.940	11.886	1.00	26.83
ATOM	3665	CD1	TYR	A	480	61.473	49.507	12.582	1.00	26.90
ATOM	3666	CD2	TYR	A	480	59.288	50.441	12.624	1.00	28.75
ATOM	3667	CE1	TYR	A	480	61.541	49.597	13.959	1.00	27.86
ATOM	3668	CE2	TYR	A	480	59.342	50.563	14.009	1.00	27.36
ATOM	3669	CZ	TYR	A	480	60.474	50.126	14.671	1.00	28.64
ATOM	3670	OH	TYR	A	480	60.589	50.175	16.028	1.00	32.30
ATOM	3671	N	THR	A	481	58.947	47.948	7.740	1.00	25.79
ATOM	3672	CA	THR	A	481	58.733	47.783	6.280	1.00	25.94
ATOM	3673	C	THR	A	481	57.444	48.464	5.823	1.00	26.79
ATOM	3674	O	THR	A	481	56.468	48.610	6.603	1.00	27.75
ATOM	3675	CB	THR	A	481	58.642	46.300	5.940	1.00	25.77
ATOM	3676	OG1	THR	A	481	57.689	45.652	6.796	1.00	24.73
ATOM	3677	CG2	THR	A	481	59.953	45.559	6.259	1.00	25.11
ATOM	3678	N	LEU	A	482	57.407	48.893	4.577	1.00	27.02
ATOM	3679	CA	LEU	A	482	56.198	49.551	4.017	1.00	28.39
ATOM	3680	C	LEU	A	482	55.617	48.647	2.970	1.00	29.00
ATOM	3681	O	LEU	A	482	56.364	47.964	2.261	1.00	28.88
ATOM	3682	CB	LEU	A	482	56.583	50.886	3.393	1.00	28.80
ATOM	3683	CG	LEU	A	482	55.694	52.065	3.061	1.00	29.45
ATOM	3684	CD1	LEU	A	482	55.322	52.000	1.602	1.00	34.74
ATOM	3685	CD2	LEU	A	482	54.559	52.139	4.010	1.00	31.91
ATOM	3686	N	HIS	A	483	54.286	48.625	2.888	1.00	29.13
ATOM	3687	CA	HIS	A	483	53.561	47.745	1.987	1.00	29.27
ATOM	3688	C	HIS	A	483	52.327	48.347	1.339	1.00	29.70
ATOM	3689	O	HIS	A	483	51.631	49.183	1.928	1.00	29.62
ATOM	3690	CB	HIS	A	483	53.058	46.565	2.774	1.00	29.56
ATOM	3691	CG	HIS	A	483	54.109	45.781	3.488	1.00	30.37
ATOM	3692	ND1	HIS	A	483	54.478	46.048	4.791	1.00	32.06
ATOM	3693	CD2	HIS	A	483	54.809	44.682	3.121	1.00	29.51
ATOM	3694	CE1	HIS	A	483	55.394	45.179	5.172	1.00	28.87
ATOM	3695	NE2	HIS	A	483	55.614	44.340	4.181	1.00	29.23
ATOM	3696	N	SER	A	484	52.017	47.866	0.140	1.00	30.49

ATOM	3697	CA	SER	A	484	50.780	48.273	-0.530	1.00	31.66
ATOM	3698	C	SER	A	484	49.644	47.255	-0.340	1.00	31.04
ATOM	3699	O	SER	A	484	49.830	46.068	-0.516	1.00	29.45
ATOM	3700	CB	SER	A	484	51.018	48.473	-2.004	1.00	31.81
ATOM	3701	OG	SER	A	484	51.194	47.221	-2.593	1.00	36.07
ATOM	3702	N	SER	A	485	48.471	47.713	0.052	1.00	31.59
ATOM	3703	CA	SER	A	485	47.377	46.779	0.341	1.00	31.97
ATOM	3704	C	SER	A	485	46.812	45.981	-0.889	1.00	33.22
ATOM	3705	O	SER	A	485	46.347	44.871	-0.733	1.00	31.17
ATOM	3706	CB	SER	A	485	46.224	47.517	1.056	1.00	31.84
ATOM	3707	OG	SER	A	485	46.495	47.820	2.429	1.00	30.78
ATOM	3708	N	VAL	A	486	46.906	46.520	-2.092	1.00	35.73
ATOM	3709	CA	VAL	A	486	46.320	45.843	-3.290	1.00	38.83
ATOM	3710	C	VAL	A	486	46.643	44.361	-3.445	1.00	39.66
ATOM	3711	O	VAL	A	486	45.762	43.547	-3.497	1.00	39.83
ATOM	3712	CB	VAL	A	486	46.779	46.461	-4.616	1.00	39.39
ATOM	3713	CG1	VAL	A	486	45.994	45.827	-5.743	1.00	40.77
ATOM	3714	CG2	VAL	A	486	46.560	47.936	-4.622	1.00	40.89
ATOM	3715	N	ASN	A	487	47.918	44.043	-3.544	1.00	41.49
ATOM	3716	CA	ASN	A	487	48.397	42.673	-3.672	1.00	43.70
ATOM	3717	C	ASN	A	487	49.507	42.699	-2.646	1.00	44.54
ATOM	3718	O	ASN	A	487	50.661	43.041	-2.976	1.00	47.53
ATOM	3719	CB	ASN	A	487	48.968	42.424	-5.079	1.00	43.60
ATOM	3720	CG	ASN	A	487	47.931	42.677	-6.209	1.00	46.15
ATOM	3721	OD1	ASN	A	487	47.879	43.771	-6.808	1.00	45.78
ATOM	3722	ND2	ASN	A	487	47.090	41.666	-6.480	1.00	47.33
ATOM	3723	N	ASP	A	488	49.156	42.406	-1.407	1.00	44.16
ATOM	3724	CA	ASP	A	488	49.991	42.765	-0.256	1.00	43.13
ATOM	3725	C	ASP	A	488	51.440	42.640	-0.572	1.00	42.07
ATOM	3726	O	ASP	A	488	52.063	41.698	-0.129	1.00	41.39
ATOM	3727	CB	ASP	A	488	49.632	41.919	0.969	1.00	43.40
ATOM	3728	CG	ASP	A	488	48.261	42.269	1.535	1.00	44.42
ATOM	3729	OD1	ASP	A	488	47.250	41.758	1.016	1.00	44.23
ATOM	3730	OD2	ASP	A	488	48.113	43.048	2.498	1.00	47.17
ATOM	3731	N	LYS	A	489	51.970	43.591	-1.336	1.00	41.30
ATOM	3732	CA	LYS	A	489	53.362	43.532	-1.778	1.00	41.77
ATOM	3733	C	LYS	A	489	54.208	44.372	-0.850	1.00	39.87
ATOM	3734	O	LYS	A	489	53.766	45.428	-0.402	1.00	39.61
ATOM	3735	CB	LYS	A	489	53.509	44.059	-3.223	1.00	43.04
ATOM	3736	CG	LYS	A	489	54.927	43.896	-3.868	1.00	45.55
ATOM	3737	CD	LYS	A	489	54.887	44.193	-5.389	1.00	48.94
ATOM	3738	CE	LYS	A	489	56.304	44.463	-6.036	1.00	51.28
ATOM	3739	NZ	LYS	A	489	56.810	45.920	-6.081	1.00	49.79
ATOM	3740	N	GLY	A	490	55.396	43.882	-0.532	1.00	37.79
ATOM	3741	CA	GLY	A	490	56.324	44.656	0.259	1.00	37.25
ATOM	3742	C	GLY	A	490	56.914	45.694	-0.665	1.00	36.45
ATOM	3743	O	GLY	A	490	57.299	45.383	-1.788	1.00	37.78
ATOM	3744	N	LEU	A	491	56.948	46.942	-0.240	1.00	35.33
ATOM	3745	CA	LEU	A	491	57.461	47.964	-1.104	1.00	34.44
ATOM	3746	C	LEU	A	491	58.935	48.323	-0.856	1.00	34.34
ATOM	3747	O	LEU	A	491	59.670	48.514	-1.839	1.00	34.89
ATOM	3748	CB	LEU	A	491	56.580	49.197	-0.989	1.00	34.55
ATOM	3749	CG	LEU	A	491	55.123	49.022	-1.451	1.00	34.62
ATOM	3750	CD1	LEU	A	491	54.288	50.122	-0.858	1.00	33.61
ATOM	3751	CD2	LEU	A	491	54.968	48.996	-2.978	1.00	31.54
ATOM	3752	N	ARG	A	492	59.343	48.434	0.426	1.00	32.66
ATOM	3753	CA	ARG	A	492	60.660	48.927	0.871	1.00	31.58
ATOM	3754	C	ARG	A	492	60.864	48.546	2.277	1.00	30.93
ATOM	3755	O	ARG	A	492	59.901	48.480	3.019	1.00	30.06
ATOM	3756	CB	ARG	A	492	60.645	50.434	1.042	1.00	32.97
ATOM	3757	CG	ARG	A	492	60.828	51.171	-0.161	1.00	34.92
ATOM	3758	CD	ARG	A	492	60.326	52.610	-0.150	1.00	34.50
ATOM	3759	NE	ARG	A	492	59.490	52.636	-1.321	1.00	32.59
ATOM	3760	CZ	ARG	A	492	58.219	52.906	-1.332	1.00	34.65
ATOM	3761	NH1	ARG	A	492	57.575	53.305	-0.232	1.00	32.87
ATOM	3762	NH2	ARG	A	492	57.586	52.809	-2.491	1.00	37.06
ATOM	3763	N	VAL	A	493	62.127	48.449	2.653	1.00	30.19
ATOM	3764	CA	VAL	A	493	62.542	48.283	4.028	1.00	30.35
ATOM	3765	C	VAL	A	493	62.731	49.718	4.529	1.00	29.81
ATOM	3766	O	VAL	A	493	63.407	50.499	3.881	1.00	29.10

ATOM	3767	CB	VAL	A	493	63.861	47.525	4.125	1.00 30.28
ATOM	3768	CG1	VAL	A	493	64.339	47.465	5.601	1.00 32.53
ATOM	3769	CG2	VAL	A	493	63.706	46.116	3.602	1.00 30.23
ATOM	3770	N	LEU	A	494	62.112	50.085	5.653	1.00 29.29
ATOM	3771	CA	LEU	A	494	62.266	51.451	6.148	1.00 27.76
ATOM	3772	C	LEU	A	494	63.412	51.601	7.157	1.00 27.82
ATOM	3773	O	LEU	A	494	64.179	52.547	7.086	1.00 26.89
ATOM	3774	CB	LEU	A	494	60.947	51.946	6.728	1.00 28.18
ATOM	3775	CG	LEU	A	494	59.767	51.913	5.744	1.00 25.32
ATOM	3776	CD1	LEU	A	494	58.460	52.048	6.574	1.00 25.03
ATOM	3777	CD2	LEU	A	494	59.837	53.020	4.700	1.00 25.99
ATOM	3778	N	GLU	A	495	63.507	50.668	8.097	1.00 26.93
ATOM	3779	CA	GLU	A	495	64.583	50.634	9.053	1.00 26.86
ATOM	3780	C	GLU	A	495	64.800	49.191	9.423	1.00 27.38
ATOM	3781	O	GLU	A	495	63.850	48.505	9.886	1.00 27.45
ATOM	3782	CB	GLU	A	495	64.227	51.421	10.320	1.00 26.93
ATOM	3783	CG	GLU	A	495	65.284	51.279	11.406	1.00 27.46
ATOM	3784	CD	GLU	A	495	66.667	51.737	10.964	1.00 28.72
ATOM	3785	OE1	GLU	A	495	66.849	52.939	10.662	1.00 27.14
ATOM	3786	OE2	GLU	A	495	67.565	50.872	10.896	1.00 32.40
ATOM	3787	N	ASP	A	496	66.021	48.710	9.216	1.00 26.60
ATOM	3788	CA	ASP	A	496	66.343	47.347	9.595	1.00 27.19
ATOM	3789	C	ASP	A	496	67.312	47.209	10.761	1.00 26.76
ATOM	3790	O	ASP	A	496	67.664	46.094	11.095	1.00 25.91
ATOM	3791	CB	ASP	A	496	66.845	46.509	8.409	1.00 27.04
ATOM	3792	CG	ASP	A	496	68.163	46.991	7.848	1.00 30.52
ATOM	3793	OD1	ASP	A	496	68.807	47.907	8.429	1.00 35.11
ATOM	3794	OD2	ASP	A	496	68.622	46.504	6.788	1.00 32.05
ATOM	3795	N	ASN	A	497	67.705	48.316	11.377	1.00 27.15
ATOM	3796	CA	ASN	A	497	68.661	48.285	12.494	1.00 28.78
ATOM	3797	C	ASN	A	497	69.958	47.515	12.182	1.00 29.53
ATOM	3798	O	ASN	A	497	70.514	46.820	13.063	1.00 29.16
ATOM	3799	CB	ASN	A	497	67.977	47.719	13.784	1.00 29.45
ATOM	3800	CG	ASN	A	497	67.124	48.763	14.482	1.00 30.00
ATOM	3801	OD1	ASN	A	497	67.646	49.769	14.931	1.00 29.24
ATOM	3802	ND2	ASN	A	497	65.789	48.545	14.541	1.00 29.26
ATOM	3803	N	SER	A	498	70.432	47.622	10.936	1.00 29.99
ATOM	3804	CA	SER	A	498	71.712	47.020	10.552	1.00 31.47
ATOM	3805	C	SER	A	498	72.841	47.552	11.438	1.00 31.80
ATOM	3806	O	SER	A	498	73.730	46.819	11.855	1.00 32.35
ATOM	3807	CB	SER	A	498	72.055	47.346	9.088	1.00 31.18
ATOM	3808	OG	SER	A	498	72.035	48.768	8.935	1.00 33.29
ATOM	3809	N	ALA	A	499	72.798	48.834	11.730	1.00 32.02
ATOM	3810	CA	ALA	A	499	73.828	49.425	12.546	1.00 31.95
ATOM	3811	C	ALA	A	499	73.919	48.707	13.900	1.00 33.04
ATOM	3812	O	ALA	A	499	74.989	48.185	14.270	1.00 33.43
ATOM	3813	CB	ALA	A	499	73.590	50.888	12.681	1.00 31.12
ATOM	3814	N	LEU	A	500	72.794	48.580	14.605	1.00 33.98
ATOM	3815	CA	LEU	A	500	72.779	47.942	15.907	1.00 34.37
ATOM	3816	C	LEU	A	500	73.212	46.496	15.818	1.00 34.56
ATOM	3817	O	LEU	A	500	73.939	45.975	16.662	1.00 34.65
ATOM	3818	CB	LEU	A	500	71.365	48.041	16.494	1.00 35.16
ATOM	3819	CG	LEU	A	500	71.074	47.771	17.973	1.00 36.71
ATOM	3820	CD1	LEU	A	500	70.484	46.432	18.084	1.00 38.33
ATOM	3821	CD2	LEU	A	500	72.261	47.905	18.963	1.00 36.14
ATOM	3822	N	ASP	A	501	72.719	45.816	14.819	1.00 35.24
ATOM	3823	CA	ASP	A	501	73.139	44.443	14.585	1.00 36.88
ATOM	3824	C	ASP	A	501	74.696	44.349	14.649	1.00 36.67
ATOM	3825	O	ASP	A	501	75.249	43.495	15.355	1.00 35.36
ATOM	3826	CB	ASP	A	501	72.671	43.974	13.210	1.00 37.03
ATOM	3827	CG	ASP	A	501	72.683	42.495	13.088	1.00 41.29
ATOM	3828	OD1	ASP	A	501	71.921	41.847	13.829	1.00 47.04
ATOM	3829	OD2	ASP	A	501	73.420	41.864	12.295	1.00 48.28
ATOM	3830	N	LYS	A	502	75.404	45.224	13.936	1.00 36.25
ATOM	3831	CA	LYS	A	502	76.877	45.081	13.949	1.00 36.92
ATOM	3832	C	LYS	A	502	77.493	45.344	15.326	1.00 35.12
ATOM	3833	O	LYS	A	502	78.362	44.624	15.719	1.00 34.06
ATOM	3834	CB	LYS	A	502	77.591	45.872	12.839	1.00 37.57
ATOM	3835	CG	LYS	A	502	77.079	47.247	12.631	1.00 40.85
ATOM	3836	CD	LYS	A	502	78.126	48.152	11.978	1.00 45.63

ATOM	3837	CE	LYS	A	502	78.246	49.438	12.847	1.00	46.85
ATOM	3838	NZ	LYS	A	502	76.961	49.683	13.597	1.00	42.88
ATOM	3839	N	MET	A	503	76.995	46.309	16.087	1.00	34.82
ATOM	3840	CA	MET	A	503	77.579	46.538	17.380	1.00	35.39
ATOM	3841	C	MET	A	503	77.372	45.336	18.285	1.00	35.75
ATOM	3842	O	MET	A	503	78.279	44.940	19.019	1.00	35.08
ATOM	3843	CB	MET	A	503	77.014	47.788	18.017	1.00	35.70
ATOM	3844	CG	MET	A	503	77.302	49.022	17.252	1.00	37.65
ATOM	3845	SD	MET	A	503	76.521	50.415	18.018	1.00	43.87
ATOM	3846	CE	MET	A	503	74.863	50.228	17.447	1.00	44.49
ATOM	3847	N	LEU	A	504	76.187	44.735	18.181	1.00	36.04
ATOM	3848	CA	LEU	A	504	75.781	43.655	19.060	1.00	35.94
ATOM	3849	C	LEU	A	504	76.558	42.406	18.780	1.00	36.06
ATOM	3850	O	LEU	A	504	76.739	41.551	19.664	1.00	35.69
ATOM	3851	CB	LEU	A	504	74.274	43.451	18.967	1.00	36.22
ATOM	3852	CG	LEU	A	504	73.461	44.615	19.567	1.00	37.88
ATOM	3853	CD1	LEU	A	504	71.989	44.234	19.691	1.00	40.39
ATOM	3854	CD2	LEU	A	504	73.950	45.071	20.940	1.00	37.32
ATOM	3855	N	GLN	A	505	77.069	42.308	17.557	1.00	36.55
ATOM	3856	CA	GLN	A	505	77.963	41.218	17.220	1.00	36.93
ATOM	3857	C	GLN	A	505	79.177	41.269	18.157	1.00	35.99
ATOM	3858	O	GLN	A	505	79.738	40.237	18.463	1.00	34.66
ATOM	3859	CB	GLN	A	505	78.407	41.308	15.752	1.00	37.71
ATOM	3860	CG	GLN	A	505	77.323	40.933	14.739	1.00	41.41
ATOM	3861	CD	GLN	A	505	77.637	41.489	13.330	1.00	47.47
ATOM	3862	OE1	GLN	A	505	78.811	41.591	12.958	1.00	52.31
ATOM	3863	NE2	GLN	A	505	76.596	41.866	12.566	1.00	48.31
ATOM	3864	N	ASN	A	506	79.584	42.457	18.605	1.00	36.22
ATOM	3865	CA	ASN	A	506	80.733	42.539	19.507	1.00	37.72
ATOM	3866	C	ASN	A	506	80.348	42.595	20.978	1.00	37.33
ATOM	3867	O	ASN	A	506	81.134	43.044	21.804	1.00	36.99
ATOM	3868	CB	ASN	A	506	81.685	43.699	19.196	1.00	38.48
ATOM	3869	CG	ASN	A	506	83.156	43.382	19.579	1.00	41.29
ATOM	3870	OD1	ASN	A	506	83.488	42.260	20.002	1.00	46.82
ATOM	3871	ND2	ASN	A	506	84.038	44.348	19.386	1.00	44.80
ATOM	3872	N	VAL	A	507	79.158	42.105	21.309	1.00	37.21
ATOM	3873	CA	VAL	A	507	78.777	42.019	22.697	1.00	36.18
ATOM	3874	C	VAL	A	507	78.353	40.601	23.064	1.00	35.75
ATOM	3875	O	VAL	A	507	77.729	39.885	22.272	1.00	33.24
ATOM	3876	CB	VAL	A	507	77.672	43.043	23.009	1.00	36.32
ATOM	3877	CG1	VAL	A	507	77.465	43.154	24.527	1.00	36.71
ATOM	3878	CG2	VAL	A	507	78.055	44.354	22.479	1.00	33.94
ATOM	3879	N	GLN	A	508	78.723	40.155	24.262	1.00	35.82
ATOM	3880	CA	GLN	A	508	78.250	38.829	24.703	1.00	36.41
ATOM	3881	C	GLN	A	508	76.760	38.960	25.132	1.00	36.27
ATOM	3882	O	GLN	A	508	76.448	39.117	26.317	1.00	37.04
ATOM	3883	CB	GLN	A	508	79.101	38.277	25.861	1.00	36.81
ATOM	3884	CG	GLN	A	508	80.602	38.172	25.575	1.00	36.67
ATOM	3885	CD	GLN	A	508	81.371	37.494	26.673	1.00	34.39
ATOM	3886	OE1	GLN	A	508	82.271	38.098	27.272	1.00	37.16
ATOM	3887	NE2	GLN	A	508	81.082	36.222	26.906	1.00	32.55
ATOM	3888	N	MET	A	509	75.851	38.873	24.172	1.00	35.31
ATOM	3889	CA	MET	A	509	74.428	39.078	24.429	1.00	35.41
ATOM	3890	C	MET	A	509	73.742	37.843	24.986	1.00	34.31
ATOM	3891	O	MET	A	509	74.036	36.754	24.543	1.00	35.81
ATOM	3892	CB	MET	A	509	73.741	39.499	23.125	1.00	35.57
ATOM	3893	CG	MET	A	509	74.126	40.891	22.688	1.00	38.49
ATOM	3894	SD	MET	A	509	73.589	42.110	23.958	1.00	44.97
ATOM	3895	CE	MET	A	509	71.763	41.920	23.553	1.00	40.97
ATOM	3896	N	PRO	A	510	72.811	38.009	25.935	1.00	33.30
ATOM	3897	CA	PRO	A	510	72.090	36.869	26.499	1.00	33.10
ATOM	3898	C	PRO	A	510	71.177	36.307	25.465	1.00	33.21
ATOM	3899	O	PRO	A	510	70.964	36.980	24.485	1.00	32.54
ATOM	3900	CB	PRO	A	510	71.163	37.501	27.580	1.00	33.42
ATOM	3901	CG	PRO	A	510	71.103	38.917	27.314	1.00	32.83
ATOM	3902	CD	PRO	A	510	72.326	39.288	26.467	1.00	32.45
ATOM	3903	N	SER	A	511	70.589	35.145	25.706	1.00	33.60
ATOM	3904	CA	SER	A	511	69.579	34.638	24.807	1.00	34.17
ATOM	3905	C	SER	A	511	68.271	34.653	25.565	1.00	34.99
ATOM	3906	O	SER	A	511	68.233	34.799	26.804	1.00	34.35

ATOM	3907	CB	SER	A	511	69.864	33.201	24.377	1.00	34.66
ATOM	3908	OG	SER	A	511	69.992	32.345	25.508	1.00	34.37
ATOM	3909	N	LYS	A	512	67.201	34.477	24.816	1.00	34.20
ATOM	3910	CA	LYS	A	512	65.893	34.427	25.396	1.00	34.13
ATOM	3911	C	LYS	A	512	65.214	33.122	25.035	1.00	33.91
ATOM	3912	O	LYS	A	512	65.164	32.716	23.866	1.00	32.89
ATOM	3913	CB	LYS	A	512	65.107	35.619	24.916	1.00	33.77
ATOM	3914	CG	LYS	A	512	63.673	35.564	25.266	1.00	33.43
ATOM	3915	CD	LYS	A	512	63.040	36.902	24.913	1.00	33.10
ATOM	3916	CE	LYS	A	512	61.708	37.119	25.555	1.00	29.91
ATOM	3917	NZ	LYS	A	512	61.085	38.350	24.967	1.00	28.32
ATOM	3918	N	LYS	A	513	64.699	32.471	26.058	1.00	33.75
ATOM	3919	CA	LYS	A	513	63.992	31.219	25.916	1.00	34.76
ATOM	3920	C	LYS	A	513	62.537	31.497	26.238	1.00	34.65
ATOM	3921	O	LYS	A	513	62.257	32.062	27.276	1.00	34.59
ATOM	3922	CB	LYS	A	513	64.575	30.201	26.889	1.00	35.33
ATOM	3923	CG	LYS	A	513	64.510	28.739	26.398	1.00	39.42
ATOM	3924	CD	LYS	A	513	63.413	27.898	27.072	1.00	41.17
ATOM	3925	CE	LYS	A	513	63.589	26.380	26.788	1.00	43.57
ATOM	3926	NZ	LYS	A	513	64.157	25.601	27.953	1.00	45.70
ATOM	3927	N	LEU	A	514	61.621	31.118	25.344	1.00	34.65
ATOM	3928	CA	LEU	A	514	60.191	31.352	25.505	1.00	34.56
ATOM	3929	C	LEU	A	514	59.563	29.987	25.383	1.00	35.35
ATOM	3930	O	LEU	A	514	59.745	29.340	24.381	1.00	34.58
ATOM	3931	CB	LEU	A	514	59.676	32.293	24.396	1.00	34.74
ATOM	3932	CG	LEU	A	514	58.176	32.603	24.293	1.00	34.11
ATOM	3933	CD1	LEU	A	514	57.816	33.292	23.019	1.00	32.68
ATOM	3934	CD2	LEU	A	514	57.357	31.351	24.362	1.00	35.00
ATOM	3935	N	ASP	A	515	58.784	29.555	26.374	1.00	36.47
ATOM	3936	CA	ASP	A	515	58.292	28.194	26.393	1.00	37.43
ATOM	3937	C	ASP	A	515	57.200	28.147	27.455	1.00	38.11
ATOM	3938	O	ASP	A	515	56.814	29.193	27.991	1.00	38.35
ATOM	3939	CB	ASP	A	515	59.456	27.286	26.789	1.00	38.01
ATOM	3940	CG	ASP	A	515	59.343	25.856	26.271	1.00	39.55
ATOM	3941	OD1	ASP	A	515	58.247	25.307	26.003	1.00	40.04
ATOM	3942	OD2	ASP	A	515	60.367	25.168	26.131	1.00	46.00
ATOM	3943	N	PHE	A	516	56.757	26.944	27.796	1.00	37.99
ATOM	3944	CA	PHE	A	516	55.673	26.763	28.721	1.00	39.35
ATOM	3945	C	PHE	A	516	55.867	25.545	29.646	1.00	40.21
ATOM	3946	O	PHE	A	516	56.629	24.643	29.343	1.00	40.04
ATOM	3947	CB	PHE	A	516	54.363	26.612	27.924	1.00	39.53
ATOM	3948	CG	PHE	A	516	54.296	25.371	27.028	1.00	39.01
ATOM	3949	CD1	PHE	A	516	53.835	24.148	27.536	1.00	41.98
ATOM	3950	CD2	PHE	A	516	54.612	25.451	25.677	1.00	39.54
ATOM	3951	CE1	PHE	A	516	53.735	23.004	26.707	1.00	41.97
ATOM	3952	CE2	PHE	A	516	54.510	24.324	24.817	1.00	40.66
ATOM	3953	CZ	PHE	A	516	54.072	23.102	25.331	1.00	41.88
ATOM	3954	N	ILE	A	517	55.183	25.561	30.777	1.00	41.13
ATOM	3955	CA	ILE	A	517	55.081	24.403	31.646	1.00	42.46
ATOM	3956	C	ILE	A	517	53.589	24.075	31.754	1.00	43.86
ATOM	3957	O	ILE	A	517	52.729	24.922	31.461	1.00	43.22
ATOM	3958	CB	ILE	A	517	55.692	24.669	33.035	1.00	42.62
ATOM	3959	CG1	ILE	A	517	54.909	25.757	33.752	1.00	43.03
ATOM	3960	CG2	ILE	A	517	57.195	25.002	32.910	1.00	42.66
ATOM	3961	CD1	ILE	A	517	55.637	26.398	34.873	1.00	43.74
ATOM	3962	N	ILE	A	518	53.285	22.846	32.155	1.00	45.38
ATOM	3963	CA	ILE	A	518	51.915	22.378	32.232	1.00	47.13
ATOM	3964	C	ILE	A	518	51.552	22.224	33.670	1.00	48.18
ATOM	3965	O	ILE	A	518	52.152	21.424	34.374	1.00	48.20
ATOM	3966	CB	ILE	A	518	51.776	21.025	31.508	1.00	47.75
ATOM	3967	CG1	ILE	A	518	51.830	21.240	30.010	1.00	48.10
ATOM	3968	CG2	ILE	A	518	50.454	20.360	31.843	1.00	47.35
ATOM	3969	CD1	ILE	A	518	51.486	19.994	29.206	1.00	49.90
ATOM	3970	N	LEU	A	519	50.574	22.983	34.133	1.00	49.54
ATOM	3971	CA	LEU	A	519	50.291	22.939	35.565	1.00	50.67
ATOM	3972	C	LEU	A	519	49.224	21.931	35.914	1.00	51.47
ATOM	3973	O	LEU	A	519	49.546	20.850	36.438	1.00	52.15
ATOM	3974	CB	LEU	A	519	50.001	24.321	36.129	1.00	50.73
ATOM	3975	CG	LEU	A	519	51.301	24.933	36.671	1.00	51.17
ATOM	3976	CD1	LEU	A	519	51.149	26.363	37.118	1.00	50.67

ATOM	3977	CD2	LEU	A	519	51.828	24.102	37.830	1.00	52.15
ATOM	3978	N	ASN	A	520	47.967	22.235	35.651	1.00	51.84
ATOM	3979	CA	ASN	A	520	46.957	21.211	35.875	1.00	52.12
ATOM	3980	C	ASN	A	520	46.840	20.538	34.517	1.00	51.91
ATOM	3981	O	ASN	A	520	47.726	19.752	34.154	1.00	53.00
ATOM	3982	CB	ASN	A	520	45.681	21.818	36.416	1.00	52.46
ATOM	3983	CG	ASN	A	520	45.876	22.412	37.808	1.00	53.98
ATOM	3984	OD1	ASN	A	520	46.298	21.731	38.728	1.00	56.71
ATOM	3985	ND2	ASN	A	520	45.598	23.699	37.952	1.00	57.42
ATOM	3986	N	GLU	A	521	45.812	20.818	33.738	1.00	50.80
ATOM	3987	CA	GLU	A	521	45.839	20.331	32.357	1.00	50.22
ATOM	3988	C	GLU	A	521	45.979	21.585	31.510	1.00	48.04
ATOM	3989	O	GLU	A	521	45.363	21.690	30.466	1.00	48.73
ATOM	3990	CB	GLU	A	521	44.530	19.654	31.917	1.00	51.10
ATOM	3991	CG	GLU	A	521	44.052	18.403	32.650	1.00	53.30
ATOM	3992	CD	GLU	A	521	42.565	18.109	32.365	1.00	55.46
ATOM	3993	OE1	GLU	A	521	42.090	18.267	31.189	1.00	55.06
ATOM	3994	OE2	GLU	A	521	41.856	17.724	33.318	1.00	56.66
ATOM	3995	N	THR	A	522	46.779	22.541	31.948	1.00	45.52
ATOM	3996	CA	THR	A	522	46.809	23.828	31.272	1.00	43.32
ATOM	3997	C	THR	A	522	48.208	24.414	31.061	1.00	41.37
ATOM	3998	O	THR	A	522	49.030	24.473	31.973	1.00	39.46
ATOM	3999	CB	THR	A	522	45.958	24.811	32.089	1.00	43.52
ATOM	4000	OG1	THR	A	522	44.579	24.375	32.098	1.00	44.31
ATOM	4001	CG2	THR	A	522	45.954	26.204	31.432	1.00	43.41
ATOM	4002	N	LYS	A	523	48.439	24.893	29.851	1.00	39.61
ATOM	4003	CA	LYS	A	523	49.709	25.512	29.493	1.00	38.88
ATOM	4004	C	LYS	A	523	49.904	26.925	30.083	1.00	36.51
ATOM	4005	O	LYS	A	523	49.067	27.784	29.929	1.00	34.48
ATOM	4006	CB	LYS	A	523	49.799	25.620	27.971	1.00	39.44
ATOM	4007	CG	LYS	A	523	49.762	24.274	27.245	1.00	43.67
ATOM	4008	CD	LYS	A	523	50.100	24.496	25.745	1.00	47.88
ATOM	4009	CE	LYS	A	523	49.565	23.373	24.868	1.00	51.58
ATOM	4010	NZ	LYS	A	523	49.673	23.651	23.387	1.00	53.42
ATOM	4011	N	PHE	A	524	51.032	27.145	30.746	1.00	34.85
ATOM	4012	CA	PHE	A	524	51.373	28.458	31.256	1.00	33.50
ATOM	4013	C	PHE	A	524	52.734	28.794	30.726	1.00	33.08
ATOM	4014	O	PHE	A	524	53.660	28.011	30.865	1.00	34.18
ATOM	4015	CB	PHE	A	524	51.317	28.465	32.750	1.00	32.45
ATOM	4016	CG	PHE	A	524	49.951	28.366	33.268	1.00	30.56
ATOM	4017	CD1	PHE	A	524	49.126	29.469	33.244	1.00	29.53
ATOM	4018	CD2	PHE	A	524	49.474	27.187	33.785	1.00	30.79
ATOM	4019	CE1	PHE	A	524	47.881	29.403	33.723	1.00	30.52
ATOM	4020	CE2	PHE	A	524	48.182	27.100	34.289	1.00	29.32
ATOM	4021	CZ	PHE	A	524	47.384	28.194	34.262	1.00	30.30
ATOM	4022	N	TRP	A	525	52.846	29.957	30.104	1.00	31.67
ATOM	4023	CA	TRP	A	525	54.031	30.328	29.376	1.00	30.71
ATOM	4024	C	TRP	A	525	55.013	31.079	30.236	1.00	31.46
ATOM	4025	O	TRP	A	525	54.614	31.813	31.157	1.00	30.78
ATOM	4026	CB	TRP	A	525	53.606	31.198	28.194	1.00	30.95
ATOM	4027	CG	TRP	A	525	52.901	30.439	27.136	1.00	28.92
ATOM	4028	CD1	TRP	A	525	51.590	30.062	27.110	1.00	32.14
ATOM	4029	CD2	TRP	A	525	53.497	29.891	25.966	1.00	32.39
ATOM	4030	NE1	TRP	A	525	51.330	29.328	25.975	1.00	33.71
ATOM	4031	CE2	TRP	A	525	52.485	29.216	25.248	1.00	32.14
ATOM	4032	CE3	TRP	A	525	54.787	29.912	25.439	1.00	31.16
ATOM	4033	CZ2	TRP	A	525	52.726	28.570	24.045	1.00	32.27
ATOM	4034	CZ3	TRP	A	525	55.016	29.271	24.217	1.00	35.24
ATOM	4035	CH2	TRP	A	525	53.984	28.624	23.541	1.00	33.52
ATOM	4036	N	TYR	A	526	56.301	30.894	29.944	1.00	31.49
ATOM	4037	CA	TYR	A	526	57.342	31.643	30.601	1.00	31.28
ATOM	4038	C	TYR	A	526	58.430	31.992	29.634	1.00	31.22
ATOM	4039	O	TYR	A	526	58.557	31.404	28.561	1.00	29.20
ATOM	4040	CB	TYR	A	526	57.960	30.847	31.721	1.00	31.72
ATOM	4041	CG	TYR	A	526	58.767	29.648	31.266	1.00	33.50
ATOM	4042	CD1	TYR	A	526	58.139	28.468	30.883	1.00	36.96
ATOM	4043	CD2	TYR	A	526	60.134	29.677	31.275	1.00	36.22
ATOM	4044	CE1	TYR	A	526	58.855	27.372	30.484	1.00	36.32
ATOM	4045	CE2	TYR	A	526	60.882	28.576	30.878	1.00	38.01
ATOM	4046	CZ	TYR	A	526	60.232	27.431	30.478	1.00	38.10

ATOM	4047	OH	TYR	A	526	60.965	26.341	30.083	1.00	37.14
ATOM	4048	N	GLN	A	527	59.238	32.967	30.046	1.00	31.39
ATOM	4049	CA	GLN	A	527	60.408	33.335	29.294	1.00	30.10
ATOM	4050	C	GLN	A	527	61.579	33.417	30.234	1.00	30.59
ATOM	4051	O	GLN	A	527	61.444	33.834	31.391	1.00	29.47
ATOM	4052	CB	GLN	A	527	60.223	34.657	28.566	1.00	30.41
ATOM	4053	CG	GLN	A	527	59.922	35.884	29.404	1.00	29.04
ATOM	4054	CD	GLN	A	527	60.067	37.144	28.614	1.00	26.06
ATOM	4055	OE1	GLN	A	527	59.464	37.288	27.526	1.00	26.65
ATOM	4056	NE2	GLN	A	527	60.888	38.066	29.113	1.00	20.18
ATOM	4057	N	MET	A	528	62.735	33.028	29.730	1.00	30.18
ATOM	4058	CA	MET	A	528	63.929	33.136	30.485	1.00	31.26
ATOM	4059	C	MET	A	528	64.915	33.930	29.690	1.00	31.92
ATOM	4060	O	MET	A	528	65.091	33.695	28.494	1.00	31.39
ATOM	4061	CB	MET	A	528	64.508	31.751	30.758	1.00	32.07
ATOM	4062	CG	MET	A	528	63.987	31.170	31.968	1.00	32.27
ATOM	4063	SD	MET	A	528	64.481	29.594	32.377	1.00	36.87
ATOM	4064	CE	MET	A	528	65.854	29.504	31.652	1.00	40.66
ATOM	4065	N	ILE	A	529	65.569	34.873	30.349	1.00	31.96
ATOM	4066	CA	ILE	A	529	66.678	35.526	29.725	1.00	32.44
ATOM	4067	C	ILE	A	529	67.992	34.929	30.256	1.00	33.22
ATOM	4068	O	ILE	A	529	68.279	34.971	31.458	1.00	32.16
ATOM	4069	CB	ILE	A	529	66.513	37.018	29.784	1.00	33.33
ATOM	4070	CG1	ILE	A	529	65.543	37.355	28.620	1.00	34.42
ATOM	4071	CG2	ILE	A	529	67.834	37.722	29.522	1.00	32.58
ATOM	4072	CD1	ILE	A	529	64.917	38.586	28.695	1.00	35.57
ATOM	4073	N	LEU	A	530	68.765	34.342	29.333	1.00	33.52
ATOM	4074	CA	LEU	A	530	69.910	33.529	29.689	1.00	34.80
ATOM	4075	C	LEU	A	530	71.246	34.171	29.402	1.00	35.01
ATOM	4076	O	LEU	A	530	71.452	34.784	28.361	1.00	34.02
ATOM	4077	CB	LEU	A	530	69.862	32.182	28.957	1.00	35.02
ATOM	4078	CG	LEU	A	530	68.562	31.387	29.099	1.00	36.00
ATOM	4079	CD1	LEU	A	530	68.568	30.215	28.183	1.00	38.87
ATOM	4080	CD2	LEU	A	530	68.343	30.900	30.488	1.00	37.15
ATOM	4081	N	PRO	A	531	72.153	34.019	30.358	1.00	35.65
ATOM	4082	CA	PRO	A	531	73.519	34.505	30.216	1.00	36.34
ATOM	4083	C	PRO	A	531	74.156	33.893	28.989	1.00	37.00
ATOM	4084	O	PRO	A	531	73.874	32.737	28.657	1.00	36.54
ATOM	4085	CB	PRO	A	531	74.219	33.979	31.475	1.00	36.87
ATOM	4086	CG	PRO	A	531	73.102	33.815	32.504	1.00	36.79
ATOM	4087	CD	PRO	A	531	71.903	33.399	31.665	1.00	35.99
ATOM	4088	N	PRO	A	532	75.065	34.615	28.370	1.00	38.89
ATOM	4089	CA	PRO	A	532	75.736	34.112	27.172	1.00	40.94
ATOM	4090	C	PRO	A	532	76.540	32.899	27.578	1.00	42.87
ATOM	4091	O	PRO	A	532	76.969	32.844	28.726	1.00	42.62
ATOM	4092	CB	PRO	A	532	76.687	35.249	26.799	1.00	40.71
ATOM	4093	CG	PRO	A	532	76.937	35.960	28.098	1.00	40.62
ATOM	4094	CD	PRO	A	532	75.653	35.878	28.850	1.00	39.14
ATOM	4095	N	HIS	A	533	76.762	31.956	26.671	1.00	45.30
ATOM	4096	CA	HIS	A	533	77.589	30.799	27.004	1.00	46.60
ATOM	4097	C	HIS	A	533	76.869	30.036	28.093	1.00	47.82
ATOM	4098	O	HIS	A	533	77.483	29.434	28.973	1.00	48.86
ATOM	4099	CB	HIS	A	533	78.962	31.264	27.483	1.00	46.56
ATOM	4100	CG	HIS	A	533	79.694	32.095	26.477	1.00	49.41
ATOM	4101	ND1	HIS	A	533	80.744	32.924	26.812	1.00	52.76
ATOM	4102	CD2	HIS	A	533	79.527	32.227	25.138	1.00	50.29
ATOM	4103	CE1	HIS	A	533	81.196	33.523	25.723	1.00	51.60
ATOM	4104	NE2	HIS	A	533	80.479	33.111	24.695	1.00	51.07
ATOM	4105	N	PHE	A	534	75.548	30.097	28.045	1.00	48.63
ATOM	4106	CA	PHE	A	534	74.730	29.426	29.019	1.00	48.96
ATOM	4107	C	PHE	A	534	75.164	27.993	29.055	1.00	50.42
ATOM	4108	O	PHE	A	534	75.581	27.452	28.046	1.00	50.40
ATOM	4109	CB	PHE	A	534	73.264	29.510	28.629	1.00	48.57
ATOM	4110	CG	PHE	A	534	72.362	28.767	29.551	1.00	47.33
ATOM	4111	CD1	PHE	A	534	72.208	29.175	30.859	1.00	46.58
ATOM	4112	CD2	PHE	A	534	71.681	27.654	29.117	1.00	47.50
ATOM	4113	CE1	PHE	A	534	71.388	28.498	31.708	1.00	46.08
ATOM	4114	CE2	PHE	A	534	70.848	26.969	29.965	1.00	47.28
ATOM	4115	CZ	PHE	A	534	70.701	27.391	31.263	1.00	46.52
ATOM	4116	N	ASP	A	535	75.064	27.363	30.219	1.00	51.90

ATOM	4117	CA	ASP	A	535	75.465	25.969	30.334	1.00 52.77
ATOM	4118	C	ASP	A	535	74.546	25.238	31.320	1.00 52.89
ATOM	4119	O	ASP	A	535	74.634	25.411	32.545	1.00 52.37
ATOM	4120	CB	ASP	A	535	76.945	25.925	30.728	1.00 53.18
ATOM	4121	CG	ASP	A	535	77.425	24.531	31.095	1.00 54.56
ATOM	4122	OD1	ASP	A	535	76.631	23.564	31.033	1.00 54.82
ATOM	4123	OD2	ASP	A	535	78.594	24.330	31.494	1.00 55.84
ATOM	4124	N	LYS	A	536	73.669	24.415	30.762	1.00 53.04
ATOM	4125	CA	LYS	A	536	72.635	23.742	31.535	1.00 53.87
ATOM	4126	C	LYS	A	536	73.202	22.771	32.549	1.00 53.98
ATOM	4127	O	LYS	A	536	72.456	22.064	33.237	1.00 53.62
ATOM	4128	CB	LYS	A	536	71.661	23.022	30.605	1.00 54.22
ATOM	4129	CG	LYS	A	536	72.271	21.887	29.778	1.00 57.03
ATOM	4130	CD	LYS	A	536	71.204	21.191	28.873	1.00 60.19
ATOM	4131	CE	LYS	A	536	71.872	20.349	27.753	1.00 62.09
ATOM	4132	NZ	LYS	A	536	70.912	19.553	26.913	1.00 61.07
ATOM	4133	N	SER	A	537	74.526	22.740	32.628	1.00 54.14
ATOM	4134	CA	SER	A	537	75.216	21.897	33.572	1.00 54.42
ATOM	4135	C	SER	A	537	75.529	22.684	34.848	1.00 53.89
ATOM	4136	O	SER	A	537	75.640	22.090	35.910	1.00 54.06
ATOM	4137	CB	SER	A	537	76.512	21.351	32.943	1.00 54.73
ATOM	4138	OG	SER	A	537	77.546	22.337	32.961	1.00 55.90
ATOM	4139	N	LYS	A	538	75.674	24.009	34.745	1.00 53.11
ATOM	4140	CA	LYS	A	538	75.971	24.840	35.911	1.00 52.24
ATOM	4141	C	LYS	A	538	74.693	25.331	36.593	1.00 50.44
ATOM	4142	O	LYS	A	538	73.594	25.159	36.087	1.00 50.66
ATOM	4143	CB	LYS	A	538	76.875	26.004	35.526	1.00 53.03
ATOM	4144	CG	LYS	A	538	78.368	25.591	35.291	1.00 56.29
ATOM	4145	CD	LYS	A	538	79.214	25.570	36.598	1.00 59.62
ATOM	4146	CE	LYS	A	538	80.632	24.978	36.375	1.00 61.60
ATOM	4147	NZ	LYS	A	538	81.579	25.308	37.502	1.00 62.13
ATOM	4148	N	LYS	A	539	74.817	25.915	37.768	1.00 48.21
ATOM	4149	CA	LYS	A	539	73.621	26.344	38.484	1.00 46.43
ATOM	4150	C	LYS	A	539	73.671	27.826	38.569	1.00 43.84
ATOM	4151	O	LYS	A	539	74.626	28.379	39.085	1.00 44.47
ATOM	4152	CB	LYS	A	539	73.561	25.731	39.872	1.00 46.45
ATOM	4153	CG	LYS	A	539	73.409	24.226	39.859	1.00 48.24
ATOM	4154	CD	LYS	A	539	72.651	23.732	41.073	1.00 51.70
ATOM	4155	CE	LYS	A	539	72.770	22.224	41.266	1.00 54.22
ATOM	4156	NZ	LYS	A	539	72.715	21.841	42.745	1.00 55.81
ATOM	4157	N	TYR	A	540	72.667	28.481	38.019	1.00 41.27
ATOM	4158	CA	TYR	A	540	72.652	29.927	38.024	1.00 38.92
ATOM	4159	C	TYR	A	540	71.631	30.452	39.038	1.00 37.60
ATOM	4160	O	TYR	A	540	70.668	29.765	39.412	1.00 37.20
ATOM	4161	CB	TYR	A	540	72.319	30.444	36.636	1.00 38.62
ATOM	4162	CG	TYR	A	540	73.256	30.008	35.541	1.00 36.88
ATOM	4163	CD1	TYR	A	540	73.229	28.715	35.043	1.00 38.33
ATOM	4164	CD2	TYR	A	540	74.154	30.904	34.981	1.00 36.48
ATOM	4165	CE1	TYR	A	540	74.084	28.324	34.034	1.00 37.41
ATOM	4166	CE2	TYR	A	540	75.007	30.526	33.998	1.00 36.38
ATOM	4167	CZ	TYR	A	540	74.972	29.240	33.519	1.00 38.66
ATOM	4168	OH	TYR	A	540	75.824	28.891	32.493	1.00 42.11
ATOM	4169	N	PRO	A	541	71.882	31.646	39.535	1.00 35.14
ATOM	4170	CA	PRO	A	541	70.912	32.313	40.364	1.00 34.33
ATOM	4171	C	PRO	A	541	69.819	32.812	39.436	1.00 34.12
ATOM	4172	O	PRO	A	541	70.087	33.081	38.244	1.00 34.78
ATOM	4173	CB	PRO	A	541	71.685	33.482	40.946	1.00 34.50
ATOM	4174	CG	PRO	A	541	72.834	33.650	40.130	1.00 34.44
ATOM	4175	CD	PRO	A	541	73.110	32.418	39.401	1.00 35.37
ATOM	4176	N	LEU	A	542	68.623	32.968	39.980	1.00 32.64
ATOM	4177	CA	LEU	A	542	67.495	33.359	39.177	1.00 32.09
ATOM	4178	C	LEU	A	542	66.729	34.491	39.834	1.00 31.18
ATOM	4179	O	LEU	A	542	66.435	34.432	41.008	1.00 31.28
ATOM	4180	CB	LEU	A	542	66.613	32.139	38.958	1.00 32.37
ATOM	4181	CG	LEU	A	542	65.383	32.342	38.059	1.00 32.55
ATOM	4182	CD1	LEU	A	542	65.322	31.290	36.999	1.00 31.31
ATOM	4183	CD2	LEU	A	542	64.158	32.280	38.873	1.00 33.56
ATOM	4184	N	LEU	A	543	66.479	35.536	39.052	1.00 30.31
ATOM	4185	CA	LEU	A	543	65.644	36.658	39.420	1.00 28.73
ATOM	4186	C	LEU	A	543	64.297	36.502	38.690	1.00 28.32

ATOM	4187	O	LEU	A	543	64.246	36.430	37.459	1.00	24.84
ATOM	4188	CB	LEU	A	543	66.273	37.943	38.944	1.00	28.34
ATOM	4189	CG	LEU	A	543	66.028	39.272	39.658	1.00	28.31
ATOM	4190	CD1	LEU	A	543	66.019	40.462	38.697	1.00	25.54
ATOM	4191	CD2	LEU	A	543	64.824	39.281	40.610	1.00	27.96
ATOM	4192	N	LEU	A	544	63.208	36.433	39.447	1.00	28.18
ATOM	4193	CA	LEU	A	544	61.890	36.357	38.829	1.00	28.88
ATOM	4194	C	LEU	A	544	61.387	37.757	38.789	1.00	28.80
ATOM	4195	O	LEU	A	544	61.193	38.406	39.845	1.00	29.06
ATOM	4196	CB	LEU	A	544	60.930	35.574	39.667	1.00	29.67
ATOM	4197	CG	LEU	A	544	60.008	34.455	39.230	1.00	30.70
ATOM	4198	CD1	LEU	A	544	58.839	34.547	40.212	1.00	31.74
ATOM	4199	CD2	LEU	A	544	59.531	34.492	37.868	1.00	33.99
ATOM	4200	N	ASP	A	545	61.145	38.192	37.565	1.00	27.80
ATOM	4201	CA	ASP	A	545	60.688	39.513	37.227	1.00	27.84
ATOM	4202	C	ASP	A	545	59.175	39.409	37.011	1.00	27.55
ATOM	4203	O	ASP	A	545	58.687	38.741	36.077	1.00	27.66
ATOM	4204	CB	ASP	A	545	61.472	39.939	35.972	1.00	28.12
ATOM	4205	CG	ASP	A	545	61.014	41.229	35.379	1.00	29.19
ATOM	4206	OD1	ASP	A	545	60.215	41.964	36.003	1.00	34.08
ATOM	4207	OD2	ASP	A	545	61.391	41.583	34.254	1.00	28.60
ATOM	4208	N	VAL	A	546	58.422	40.032	37.895	1.00	26.54
ATOM	4209	CA	VAL	A	546	56.983	39.913	37.860	1.00	26.42
ATOM	4210	C	VAL	A	546	56.196	41.198	37.625	1.00	25.04
ATOM	4211	O	VAL	A	546	56.581	42.293	38.035	1.00	24.61
ATOM	4212	CB	VAL	A	546	56.498	39.350	39.181	1.00	27.68
ATOM	4213	CG1	VAL	A	546	54.993	39.144	39.152	1.00	27.49
ATOM	4214	CG2	VAL	A	546	57.196	38.014	39.445	1.00	29.91
ATOM	4215	N	TYR	A	547	55.064	41.041	36.959	1.00	23.69
ATOM	4216	CA	TYR	A	547	54.117	42.110	36.842	1.00	22.57
ATOM	4217	C	TYR	A	547	52.846	41.436	37.281	1.00	22.98
ATOM	4218	O	TYR	A	547	52.406	41.613	38.424	1.00	23.27
ATOM	4219	CB	TYR	A	547	54.052	42.699	35.441	1.00	23.31
ATOM	4220	CG	TYR	A	547	53.074	43.801	35.462	1.00	25.16
ATOM	4221	CD1	TYR	A	547	53.351	44.984	36.153	1.00	25.12
ATOM	4222	CD2	TYR	A	547	51.763	43.607	34.939	1.00	24.22
ATOM	4223	CE1	TYR	A	547	52.371	46.016	36.257	1.00	25.27
ATOM	4224	CE2	TYR	A	547	50.826	44.615	35.008	1.00	24.61
ATOM	4225	CZ	TYR	A	547	51.115	45.787	35.667	1.00	23.64
ATOM	4226	OH	TYR	A	547	50.117	46.657	35.763	1.00	24.55
ATOM	4227	N	ALA	A	548	52.265	40.636	36.385	1.00	22.11
ATOM	4228	CA	ALA	A	548	51.173	39.768	36.700	1.00	20.92
ATOM	4229	C	ALA	A	548	49.835	40.380	37.101	1.00	21.97
ATOM	4230	O	ALA	A	548	49.047	39.706	37.671	1.00	21.06
ATOM	4231	CB	ALA	A	548	51.612	38.766	37.761	1.00	21.37
ATOM	4232	N	GLY	A	549	49.547	41.623	36.780	1.00	22.48
ATOM	4233	CA	GLY	A	549	48.216	42.097	37.014	1.00	23.62
ATOM	4234	C	GLY	A	549	47.287	41.502	35.950	1.00	24.09
ATOM	4235	O	GLY	A	549	47.764	40.960	34.964	1.00	23.68
ATOM	4236	N	PRO	A	550	45.979	41.659	36.160	1.00	24.27
ATOM	4237	CA	PRO	A	550	44.918	41.212	35.243	1.00	25.13
ATOM	4238	C	PRO	A	550	45.109	41.623	33.781	1.00	24.88
ATOM	4239	O	PRO	A	550	45.328	42.799	33.463	1.00	22.84
ATOM	4240	CB	PRO	A	550	43.678	41.928	35.775	1.00	25.99
ATOM	4241	CG	PRO	A	550	43.973	42.352	37.159	1.00	25.28
ATOM	4242	CD	PRO	A	550	45.442	42.315	37.358	1.00	24.62
ATOM	4243	N	CYS	A	551	45.029	40.637	32.898	1.00	26.44
ATOM	4244	CA	CYS	A	551	45.190	40.856	31.450	1.00	27.76
ATOM	4245	C	CYS	A	551	46.656	41.022	30.984	1.00	28.00
ATOM	4246	O	CYS	A	551	46.934	41.154	29.798	1.00	29.90
ATOM	4247	CB	CYS	A	551	44.397	42.083	31.040	1.00	27.76
ATOM	4248	SG	CYS	A	551	42.666	41.973	31.557	1.00	33.83
ATOM	4249	N	SER	A	552	47.621	41.003	31.890	1.00	27.10
ATOM	4250	CA	SER	A	552	48.960	41.299	31.451	1.00	26.44
ATOM	4251	C	SER	A	552	49.660	40.071	30.870	1.00	25.68
ATOM	4252	O	SER	A	552	49.178	38.944	30.987	1.00	24.80
ATOM	4253	CB	SER	A	552	49.758	41.845	32.618	1.00	26.57
ATOM	4254	OG	SER	A	552	49.863	40.817	33.568	1.00	29.75
ATOM	4255	N	GLN	A	553	50.792	40.323	30.226	1.00	25.00
ATOM	4256	CA	GLN	A	553	51.598	39.286	29.634	1.00	25.59

ATOM	4257	C	GLN	A	553	53.039	39.648	29.727	1.00	25.83
ATOM	4258	O	GLN	A	553	53.472	40.647	29.162	1.00	25.04
ATOM	4259	CB	GLN	A	553	51.244	39.143	28.159	1.00	25.82
ATOM	4260	CG	GLN	A	553	52.067	38.059	27.375	1.00	26.19
ATOM	4261	CD	GLN	A	553	51.497	37.831	25.969	1.00	24.66
ATOM	4262	OE1	GLN	A	553	51.699	38.647	25.100	1.00	28.01
ATOM	4263	NE2	GLN	A	553	50.793	36.736	25.767	1.00	22.88
ATOM	4264	N	LYS	A	554	53.795	38.812	30.418	1.00	27.54
ATOM	4265	CA	LYS	A	554	55.215	39.028	30.609	1.00	28.83
ATOM	4266	C	LYS	A	554	56.100	38.043	29.838	1.00	29.25
ATOM	4267	O	LYS	A	554	57.315	38.218	29.801	1.00	29.54
ATOM	4268	CB	LYS	A	554	55.530	38.858	32.095	1.00	30.04
ATOM	4269	CG	LYS	A	554	55.528	40.130	32.889	1.00	32.17
ATOM	4270	CD	LYS	A	554	56.755	40.982	32.524	1.00	32.20
ATOM	4271	CE	LYS	A	554	57.468	41.547	33.734	1.00	29.61
ATOM	4272	NZ	LYS	A	554	58.540	42.527	33.279	1.00	26.97
ATOM	4273	N	ALA	A	555	55.527	36.971	29.303	1.00	29.98
ATOM	4274	CA	ALA	A	555	56.279	36.058	28.419	1.00	29.87
ATOM	4275	C	ALA	A	555	55.928	36.357	26.981	1.00	28.92
ATOM	4276	O	ALA	A	555	54.829	36.135	26.591	1.00	28.84
ATOM	4277	CB	ALA	A	555	55.908	34.628	28.717	1.00	30.59
ATOM	4278	N	ASP	A	556	56.845	36.848	26.175	1.00	29.29
ATOM	4279	CA	ASP	A	556	56.496	37.164	24.775	1.00	28.88
ATOM	4280	C	ASP	A	556	57.712	37.131	23.885	1.00	28.69
ATOM	4281	O	ASP	A	556	58.808	36.879	24.369	1.00	29.50
ATOM	4282	CB	ASP	A	556	55.814	38.516	24.700	1.00	28.24
ATOM	4283	CG	ASP	A	556	56.709	39.646	25.081	1.00	29.28
ATOM	4284	OD1	ASP	A	556	57.958	39.515	24.984	1.00	28.75
ATOM	4285	OD2	ASP	A	556	56.227	40.762	25.408	1.00	33.08
ATOM	4286	N	THR	A	557	57.547	37.437	22.605	1.00	27.97
ATOM	4287	CA	THR	A	557	58.664	37.344	21.675	1.00	27.37
ATOM	4288	C	THR	A	557	59.265	38.698	21.354	1.00	27.44
ATOM	4289	O	THR	A	557	59.921	38.854	20.326	1.00	27.29
ATOM	4290	CB	THR	A	557	58.224	36.741	20.355	1.00	27.18
ATOM	4291	OG1	THR	A	557	57.098	37.466	19.876	1.00	25.91
ATOM	4292	CG2	THR	A	557	57.702	35.365	20.505	1.00	26.17
ATOM	4293	N	VAL	A	558	59.072	39.666	22.229	1.00	27.15
ATOM	4294	CA	VAL	A	558	59.628	40.993	22.018	1.00	26.81
ATOM	4295	C	VAL	A	558	61.123	41.105	22.381	1.00	27.19
ATOM	4296	O	VAL	A	558	61.608	40.551	23.373	1.00	26.77
ATOM	4297	CB	VAL	A	558	58.806	42.038	22.782	1.00	27.50
ATOM	4298	CG1	VAL	A	558	59.372	43.437	22.654	1.00	27.07
ATOM	4299	CG2	VAL	A	558	57.362	42.018	22.308	1.00	26.92
ATOM	4300	N	PHE	A	559	61.851	41.822	21.517	1.00	27.05
ATOM	4301	CA	PHE	A	559	63.237	42.117	21.722	1.00	26.81
ATOM	4302	C	PHE	A	559	63.436	43.293	22.649	1.00	26.85
ATOM	4303	O	PHE	A	559	63.027	44.379	22.344	1.00	26.95
ATOM	4304	CB	PHE	A	559	63.920	42.482	20.405	1.00	26.92
ATOM	4305	CG	PHE	A	559	65.371	42.745	20.567	1.00	28.33
ATOM	4306	CD1	PHE	A	559	66.240	41.694	20.770	1.00	31.89
ATOM	4307	CD2	PHE	A	559	65.855	44.047	20.679	1.00	30.73
ATOM	4308	CE1	PHE	A	559	67.630	41.947	20.978	1.00	34.04
ATOM	4309	CE2	PHE	A	559	67.233	44.304	20.905	1.00	31.47
ATOM	4310	CZ	PHE	A	559	68.107	43.258	21.044	1.00	31.74
ATOM	4311	N	ARG	A	560	64.173	43.118	23.729	1.00	27.22
ATOM	4312	CA	ARG	A	560	64.360	44.244	24.644	1.00	28.08
ATOM	4313	C	ARG	A	560	65.819	44.392	25.059	1.00	28.04
ATOM	4314	O	ARG	A	560	66.505	43.423	25.237	1.00	27.21
ATOM	4315	CB	ARG	A	560	63.498	44.072	25.894	1.00	28.98
ATOM	4316	CG	ARG	A	560	61.936	44.178	25.701	1.00	29.93
ATOM	4317	CD	ARG	A	560	61.099	44.022	27.041	1.00	31.30
ATOM	4318	NE	ARG	A	560	59.699	44.108	26.716	1.00	30.89
ATOM	4319	CZ	ARG	A	560	58.919	43.085	26.413	1.00	31.97
ATOM	4320	NH1	ARG	A	560	59.348	41.814	26.465	1.00	30.16
ATOM	4321	NH2	ARG	A	560	57.679	43.349	26.051	1.00	30.62
ATOM	4322	N	LEU	A	561	66.271	45.632	25.207	1.00	28.54
ATOM	4323	CA	LEU	A	561	67.570	45.931	25.806	1.00	28.49
ATOM	4324	C	LEU	A	561	67.253	46.660	27.118	1.00	27.77
ATOM	4325	O	LEU	A	561	66.930	47.867	27.145	1.00	26.56
ATOM	4326	CB	LEU	A	561	68.402	46.835	24.924	1.00	28.27

ATOM	4327	CG	LEU	A	561	68.919	46.215	23.622	1.00	30.62
ATOM	4328	CD1	LEU	A	561	69.466	47.274	22.684	1.00	30.40
ATOM	4329	CD2	LEU	A	561	69.999	45.183	23.927	1.00	29.88
ATOM	4330	N	ASN	A	562	67.359	45.935	28.212	1.00	26.75
ATOM	4331	CA	ASN	A	562	66.937	46.508	29.482	1.00	26.54
ATOM	4332	C	ASN	A	562	67.811	46.000	30.646	1.00	25.75
ATOM	4333	O	ASN	A	562	68.890	45.429	30.409	1.00	24.65
ATOM	4334	CB	ASN	A	562	65.450	46.218	29.655	1.00	26.84
ATOM	4335	CG	ASN	A	562	65.165	44.728	29.713	1.00	27.06
ATOM	4336	OD1	ASN	A	562	66.089	43.920	29.842	1.00	23.61
ATOM	4337	ND2	ASN	A	562	63.884	44.361	29.627	1.00	26.04
ATOM	4338	N	TRP	A	563	67.379	46.230	31.884	1.00	24.68
ATOM	4339	CA	TRP	A	563	68.154	45.843	33.063	1.00	24.77
ATOM	4340	C	TRP	A	563	68.391	44.332	33.121	1.00	25.75
ATOM	4341	O	TRP	A	563	69.484	43.859	33.452	1.00	23.51
ATOM	4342	CB	TRP	A	563	67.428	46.310	34.321	1.00	24.44
ATOM	4343	CG	TRP	A	563	68.183	46.093	35.607	1.00	24.88
ATOM	4344	CD1	TRP	A	563	69.474	46.449	35.897	1.00	25.62
ATOM	4345	CD2	TRP	A	563	67.652	45.528	36.800	1.00	22.46
ATOM	4346	NE1	TRP	A	563	69.770	46.121	37.202	1.00	24.87
ATOM	4347	CE2	TRP	A	563	68.665	45.554	37.773	1.00	23.96
ATOM	4348	CE3	TRP	A	563	66.390	45.038	37.159	1.00	23.58
ATOM	4349	CZ2	TRP	A	563	68.475	45.061	39.064	1.00	25.00
ATOM	4350	CZ3	TRP	A	563	66.213	44.541	38.417	1.00	22.02
ATOM	4351	CH2	TRP	A	563	67.245	44.559	39.362	1.00	21.67
ATOM	4352	N	ALA	A	564	67.343	43.567	32.846	1.00	26.67
ATOM	4353	CA	ALA	A	564	67.496	42.122	32.730	1.00	28.06
ATOM	4354	C	ALA	A	564	68.614	41.771	31.714	1.00	28.72
ATOM	4355	O	ALA	A	564	69.345	40.782	31.882	1.00	28.25
ATOM	4356	CB	ALA	A	564	66.158	41.476	32.294	1.00	28.63
ATOM	4357	N	THR	A	565	68.770	42.592	30.685	1.00	29.69
ATOM	4358	CA	THR	A	565	69.811	42.339	29.683	1.00	30.16
ATOM	4359	C	THR	A	565	71.167	42.353	30.409	1.00	30.65
ATOM	4360	O	THR	A	565	71.984	41.421	30.272	1.00	30.39
ATOM	4361	CB	THR	A	565	69.786	43.408	28.561	1.00	30.79
ATOM	4362	OG1	THR	A	565	68.577	43.308	27.825	1.00	29.29
ATOM	4363	CG2	THR	A	565	70.853	43.135	27.490	1.00	33.12
ATOM	4364	N	TYR	A	566	71.387	43.401	31.190	1.00	30.55
ATOM	4365	CA	TYR	A	566	72.617	43.541	31.963	1.00	30.73
ATOM	4366	C	TYR	A	566	72.833	42.434	32.971	1.00	30.63
ATOM	4367	O	TYR	A	566	73.909	41.869	33.032	1.00	30.91
ATOM	4368	CB	TYR	A	566	72.681	44.910	32.660	1.00	30.89
ATOM	4369	CG	TYR	A	566	73.394	44.888	34.001	1.00	31.09
ATOM	4370	CD1	TYR	A	566	74.779	44.595	34.106	1.00	31.58
ATOM	4371	CD2	TYR	A	566	72.685	45.143	35.166	1.00	31.02
ATOM	4372	CE1	TYR	A	566	75.412	44.568	35.345	1.00	28.78
ATOM	4373	CE2	TYR	A	566	73.286	45.138	36.393	1.00	27.99
ATOM	4374	CZ	TYR	A	566	74.642	44.849	36.493	1.00	30.72
ATOM	4375	OH	TYR	A	566	75.193	44.877	37.735	1.00	25.46
ATOM	4376	N	LEU	A	567	71.825	42.130	33.775	1.00	30.20
ATOM	4377	CA	LEU	A	567	71.937	41.081	34.782	1.00	29.05
ATOM	4378	C	LEU	A	567	72.382	39.749	34.170	1.00	29.55
ATOM	4379	O	LEU	A	567	73.157	38.957	34.758	1.00	28.19
ATOM	4380	CB	LEU	A	567	70.582	40.904	35.473	1.00	28.13
ATOM	4381	CG	LEU	A	567	70.233	42.068	36.424	1.00	27.20
ATOM	4382	CD1	LEU	A	567	68.905	41.852	37.092	1.00	25.37
ATOM	4383	CD2	LEU	A	567	71.305	42.331	37.526	1.00	27.82
ATOM	4384	N	ALA	A	568	71.823	39.465	33.004	1.00	30.10
ATOM	4385	CA	ALA	A	568	72.149	38.232	32.334	1.00	29.91
ATOM	4386	C	ALA	A	568	73.547	38.312	31.721	1.00	29.69
ATOM	4387	O	ALA	A	568	74.336	37.417	31.925	1.00	29.40
ATOM	4388	CB	ALA	A	568	71.083	37.882	31.288	1.00	29.91
ATOM	4389	N	SER	A	569	73.888	39.405	31.053	1.00	30.36
ATOM	4390	CA	SER	A	569	75.130	39.433	30.266	1.00	30.98
ATOM	4391	C	SER	A	569	76.370	39.652	31.096	1.00	31.60
ATOM	4392	O	SER	A	569	77.354	39.000	30.873	1.00	31.24
ATOM	4393	CB	SER	A	569	75.062	40.484	29.180	1.00	31.49
ATOM	4394	OG	SER	A	569	76.343	40.827	28.698	1.00	29.58
ATOM	4395	N	THR	A	570	76.308	40.573	32.054	1.00	31.57
ATOM	4396	CA	THR	A	570	77.428	40.830	32.929	1.00	31.14

ATOM	4397	C	THR	A	570	77.448	40.013	34.226	1.00	31.26
ATOM	4398	O	THR	A	570	78.502	39.507	34.588	1.00	31.27
ATOM	4399	CB	THR	A	570	77.469	42.292	33.327	1.00	31.50
ATOM	4400	OG1	THR	A	570	77.579	43.136	32.170	1.00	28.62
ATOM	4401	CG2	THR	A	570	78.754	42.568	34.151	1.00	33.70
ATOM	4402	N	GLU	A	571	76.311	39.873	34.926	1.00	30.73
ATOM	4403	CA	GLU	A	571	76.299	39.189	36.216	1.00	29.94
ATOM	4404	C	GLU	A	571	75.955	37.733	36.172	1.00	30.81
ATOM	4405	O	GLU	A	571	76.038	37.043	37.190	1.00	31.01
ATOM	4406	CB	GLU	A	571	75.343	39.876	37.187	1.00	29.77
ATOM	4407	CG	GLU	A	571	75.566	41.362	37.397	1.00	30.28
ATOM	4408	CD	GLU	A	571	76.980	41.725	37.807	1.00	31.41
ATOM	4409	OE1	GLU	A	571	77.675	40.823	38.285	1.00	30.55
ATOM	4410	OE2	GLU	A	571	77.371	42.920	37.677	1.00	30.19
ATOM	4411	N	ASN	A	572	75.536	37.230	35.013	1.00	31.60
ATOM	4412	CA	ASN	A	572	75.242	35.815	34.903	1.00	30.95
ATOM	4413	C	ASN	A	572	74.082	35.378	35.749	1.00	29.28
ATOM	4414	O	ASN	A	572	74.063	34.293	36.321	1.00	28.59
ATOM	4415	CB	ASN	A	572	76.479	35.003	35.238	1.00	32.51
ATOM	4416	CG	ASN	A	572	77.530	35.092	34.159	1.00	36.25
ATOM	4417	OD1	ASN	A	572	77.243	34.856	32.986	1.00	41.33
ATOM	4418	ND2	ASN	A	572	78.753	35.470	34.543	1.00	40.87
ATOM	4419	N	ILE	A	573	73.068	36.223	35.792	1.00	28.23
ATOM	4420	CA	ILE	A	573	71.842	35.885	36.463	1.00	27.13
ATOM	4421	C	ILE	A	573	70.791	35.515	35.405	1.00	27.67
ATOM	4422	O	ILE	A	573	70.650	36.199	34.423	1.00	26.39
ATOM	4423	CB	ILE	A	573	71.390	37.108	37.262	1.00	27.08
ATOM	4424	CG1	ILE	A	573	72.377	37.423	38.395	1.00	27.09
ATOM	4425	CG2	ILE	A	573	70.028	36.899	37.835	1.00	27.15
ATOM	4426	CD1	ILE	A	573	72.341	38.882	38.866	1.00	25.44
ATOM	4427	N	ILE	A	574	70.039	34.442	35.617	1.00	28.39
ATOM	4428	CA	ILE	A	574	68.933	34.131	34.744	1.00	29.05
ATOM	4429	C	ILE	A	574	67.765	35.024	35.172	1.00	29.34
ATOM	4430	O	ILE	A	574	67.456	35.119	36.363	1.00	29.44
ATOM	4431	CB	ILE	A	574	68.522	32.663	34.893	1.00	28.69
ATOM	4432	CG1	ILE	A	574	69.543	31.741	34.226	1.00	31.22
ATOM	4433	CG2	ILE	A	574	67.198	32.456	34.291	1.00	28.04
ATOM	4434	CD1	ILE	A	574	69.232	30.289	34.468	1.00	32.74
ATOM	4435	N	VAL	A	575	67.112	35.667	34.216	1.00	29.53
ATOM	4436	CA	VAL	A	575	65.965	36.483	34.548	1.00	29.76
ATOM	4437	C	VAL	A	575	64.707	35.903	33.932	1.00	29.95
ATOM	4438	O	VAL	A	575	64.543	35.898	32.711	1.00	29.63
ATOM	4439	CB	VAL	A	575	66.160	37.860	34.098	1.00	29.91
ATOM	4440	CG1	VAL	A	575	64.879	38.687	34.402	1.00	31.25
ATOM	4441	CG2	VAL	A	575	67.391	38.441	34.821	1.00	29.45
ATOM	4442	N	ALA	A	576	63.813	35.409	34.780	1.00	28.39
ATOM	4443	CA	ALA	A	576	62.617	34.777	34.288	1.00	28.29
ATOM	4444	C	ALA	A	576	61.318	35.498	34.631	1.00	28.18
ATOM	4445	O	ALA	A	576	61.207	36.161	35.676	1.00	27.41
ATOM	4446	CB	ALA	A	576	62.559	33.389	34.810	1.00	29.28
ATOM	4447	N	SER	A	577	60.340	35.324	33.745	1.00	27.14
ATOM	4448	CA	SER	A	577	58.982	35.797	33.957	1.00	27.54
ATOM	4449	C	SER	A	577	57.993	34.732	33.539	1.00	27.49
ATOM	4450	O	SER	A	577	58.283	33.898	32.696	1.00	28.59
ATOM	4451	CB	SER	A	577	58.714	37.075	33.240	1.00	27.19
ATOM	4452	OG	SER	A	577	59.805	37.939	33.396	1.00	29.78
ATOM	4453	N	PHE	A	578	56.832	34.788	34.162	1.00	27.77
ATOM	4454	CA	PHE	A	578	55.822	33.771	34.094	1.00	28.34
ATOM	4455	C	PHE	A	578	54.423	34.359	34.048	1.00	28.40
ATOM	4456	O	PHE	A	578	54.080	35.247	34.838	1.00	27.15
ATOM	4457	CB	PHE	A	578	55.908	32.933	35.361	1.00	28.57
ATOM	4458	CG	PHE	A	578	54.948	31.793	35.386	1.00	29.13
ATOM	4459	CD1	PHE	A	578	55.138	30.712	34.551	1.00	33.36
ATOM	4460	CD2	PHE	A	578	53.870	31.787	36.237	1.00	27.73
ATOM	4461	CE1	PHE	A	578	54.263	29.647	34.562	1.00	31.73
ATOM	4462	CE2	PHE	A	578	53.023	30.741	36.270	1.00	28.38
ATOM	4463	CZ	PHE	A	578	53.208	29.666	35.431	1.00	29.75
ATOM	4464	N	ASP	A	579	53.628	33.838	33.125	1.00	28.25
ATOM	4465	CA	ASP	A	579	52.275	34.249	32.922	1.00	28.24
ATOM	4466	C	ASP	A	579	51.388	33.162	33.532	1.00	28.42

ATOM	4467	O	ASP	A	579	51.185	32.113	32.916	1.00	27.61
ATOM	4468	CB	ASP	A	579	52.006	34.452	31.419	1.00	28.54
ATOM	4469	CG	ASP	A	579	52.595	35.790	30.869	1.00	30.75
ATOM	4470	OD1	ASP	A	579	52.820	36.746	31.647	1.00	30.82
ATOM	4471	OD2	ASP	A	579	52.830	36.006	29.642	1.00	34.72
ATOM	4472	N	GLY	A	580	50.914	33.399	34.771	1.00	28.17
ATOM	4473	CA	GLY	A	580	50.018	32.489	35.469	1.00	27.52
ATOM	4474	C	GLY	A	580	48.557	32.909	35.376	1.00	27.45
ATOM	4475	O	GLY	A	580	48.182	33.736	34.523	1.00	26.73
ATOM	4476	N	ARG	A	581	47.710	32.384	36.267	1.00	27.25
ATOM	4477	CA	ARG	A	581	46.301	32.769	36.224	1.00	27.30
ATOM	4478	C	ARG	A	581	46.152	34.269	36.324	1.00	27.40
ATOM	4479	O	ARG	A	581	46.910	34.949	37.008	1.00	27.28
ATOM	4480	CB	ARG	A	581	45.456	32.081	37.291	1.00	27.42
ATOM	4481	CG	ARG	A	581	45.027	30.726	36.875	1.00	28.39
ATOM	4482	CD	ARG	A	581	44.672	29.758	37.961	1.00	28.82
ATOM	4483	NE	ARG	A	581	45.723	29.536	38.944	1.00	30.44
ATOM	4484	CZ	ARG	A	581	45.496	28.949	40.118	1.00	33.24
ATOM	4485	NH1	ARG	A	581	44.255	28.618	40.427	1.00	33.68
ATOM	4486	NH2	ARG	A	581	46.484	28.702	40.991	1.00	34.06
ATOM	4487	N	GLY	A	582	45.169	34.771	35.599	1.00	28.05
ATOM	4488	CA	GLY	A	582	44.868	36.189	35.565	1.00	28.06
ATOM	4489	C	GLY	A	582	45.539	36.827	34.385	1.00	27.42
ATOM	4490	O	GLY	A	582	45.218	37.945	34.012	1.00	28.10
ATOM	4491	N	SER	A	583	46.501	36.129	33.811	1.00	26.84
ATOM	4492	CA	SER	A	583	47.200	36.668	32.668	1.00	26.81
ATOM	4493	C	SER	A	583	46.268	36.722	31.399	1.00	26.26
ATOM	4494	O	SER	A	583	45.216	36.137	31.365	1.00	25.67
ATOM	4495	CB	SER	A	583	48.528	35.928	32.455	1.00	26.87
ATOM	4496	OG	SER	A	583	48.377	34.539	32.175	1.00	28.61
ATOM	4497	N	GLY	A	584	46.646	37.482	30.401	1.00	26.14
ATOM	4498	CA	GLY	A	584	45.786	37.695	29.276	1.00	26.40
ATOM	4499	C	GLY	A	584	46.104	36.962	28.016	1.00	26.15
ATOM	4500	O	GLY	A	584	47.047	36.179	27.922	1.00	24.92
ATOM	4501	N	TYR	A	585	45.233	37.221	27.057	1.00	27.27
ATOM	4502	CA	TYR	A	585	45.369	36.756	25.692	1.00	27.73
ATOM	4503	C	TYR	A	585	45.317	35.258	25.520	1.00	28.58
ATOM	4504	O	TYR	A	585	45.689	34.777	24.463	1.00	29.54
ATOM	4505	CB	TYR	A	585	46.671	37.242	25.075	1.00	28.47
ATOM	4506	CG	TYR	A	585	46.852	38.704	25.203	1.00	27.03
ATOM	4507	CD1	TYR	A	585	45.971	39.574	24.589	1.00	26.76
ATOM	4508	CD2	TYR	A	585	47.837	39.221	26.028	1.00	22.71
ATOM	4509	CE1	TYR	A	585	46.085	40.922	24.731	1.00	24.58
ATOM	4510	CE2	TYR	A	585	47.969	40.585	26.195	1.00	23.53
ATOM	4511	CZ	TYR	A	585	47.103	41.424	25.539	1.00	25.17
ATOM	4512	OH	TYR	A	585	47.229	42.752	25.675	1.00	27.86
ATOM	4513	N	GLN	A	586	44.822	34.533	26.509	1.00	27.92
ATOM	4514	CA	GLN	A	586	44.741	33.086	26.421	1.00	27.66
ATOM	4515	C	GLN	A	586	43.313	32.610	26.790	1.00	27.85
ATOM	4516	O	GLN	A	586	43.090	31.424	27.118	1.00	26.65
ATOM	4517	CB	GLN	A	586	45.751	32.452	27.387	1.00	27.58
ATOM	4518	CG	GLN	A	586	47.215	32.842	27.212	1.00	27.04
ATOM	4519	CD	GLN	A	586	47.976	32.807	28.537	1.00	26.67
ATOM	4520	OE1	GLN	A	586	48.152	33.833	29.182	1.00	30.99
ATOM	4521	NE2	GLN	A	586	48.376	31.650	28.952	1.00	24.71
ATOM	4522	N	GLY	A	587	42.357	33.539	26.778	1.00	27.74
ATOM	4523	CA	GLY	A	587	40.976	33.202	27.070	1.00	27.65
ATOM	4524	C	GLY	A	587	40.580	33.584	28.491	1.00	27.30
ATOM	4525	O	GLY	A	587	41.413	33.852	29.356	1.00	26.71
ATOM	4526	N	ASP	A	588	39.281	33.622	28.719	1.00	28.24
ATOM	4527	CA	ASP	A	588	38.717	34.063	29.985	1.00	28.72
ATOM	4528	C	ASP	A	588	38.889	33.097	31.115	1.00	29.23
ATOM	4529	O	ASP	A	588	38.938	33.493	32.288	1.00	27.88
ATOM	4530	CB	ASP	A	588	37.258	34.378	29.804	1.00	28.82
ATOM	4531	CG	ASP	A	588	37.048	35.713	29.127	1.00	30.71
ATOM	4532	OD1	ASP	A	588	38.045	36.441	28.955	1.00	32.40
ATOM	4533	OD2	ASP	A	588	35.934	36.115	28.737	1.00	33.98
ATOM	4534	N	LYS	A	589	39.025	31.821	30.794	1.00	30.05
ATOM	4535	CA	LYS	A	589	39.165	30.856	31.863	1.00	31.24
ATOM	4536	C	LYS	A	589	40.391	31.239	32.688	1.00	30.44

ATOM	4537	O	LYS	A	589	40.379	31.182	33.918	1.00	30.91
ATOM	4538	CB	LYS	A	589	39.336	29.435	31.333	1.00	31.78
ATOM	4539	CG	LYS	A	589	39.665	28.450	32.480	1.00	36.61
ATOM	4540	CD	LYS	A	589	39.570	26.997	32.065	1.00	42.76
ATOM	4541	CE	LYS	A	589	40.168	26.045	33.132	1.00	45.94
ATOM	4542	NZ	LYS	A	589	40.138	24.612	32.636	1.00	46.76
ATOM	4543	N	ILE	A	590	41.473	31.583	32.008	1.00	29.09
ATOM	4544	CA	ILE	A	590	42.690	31.983	32.699	1.00	29.07
ATOM	4545	C	ILE	A	590	42.582	33.424	33.202	1.00	28.20
ATOM	4546	O	ILE	A	590	42.932	33.708	34.352	1.00	29.03
ATOM	4547	CB	ILE	A	590	43.917	31.792	31.766	1.00	29.03
ATOM	4548	CG1	ILE	A	590	44.305	30.299	31.697	1.00	29.00
ATOM	4549	CG2	ILE	A	590	45.086	32.594	32.253	1.00	29.24
ATOM	4550	CD1	ILE	A	590	45.365	29.961	30.622	1.00	27.13
ATOM	4551	N	MET	A	591	42.064	34.320	32.370	1.00	28.36
ATOM	4552	CA	MET	A	591	42.012	35.746	32.692	1.00	28.67
ATOM	4553	C	MET	A	591	41.074	36.094	33.837	1.00	29.62
ATOM	4554	O	MET	A	591	41.422	36.927	34.660	1.00	30.74
ATOM	4555	CB	MET	A	591	41.635	36.608	31.503	1.00	28.91
ATOM	4556	CG	MET	A	591	41.965	38.046	31.699	1.00	29.05
ATOM	4557	SD	MET	A	591	41.724	39.127	30.289	1.00	33.19
ATOM	4558	CE	MET	A	591	39.938	39.178	30.224	1.00	33.59
ATOM	4559	N	HIS	A	592	39.926	35.430	33.923	1.00	29.45
ATOM	4560	CA	HIS	A	592	38.938	35.742	34.924	1.00	29.13
ATOM	4561	C	HIS	A	592	39.151	34.959	36.190	1.00	29.85
ATOM	4562	O	HIS	A	592	38.400	35.120	37.141	1.00	29.65
ATOM	4563	CB	HIS	A	592	37.544	35.387	34.417	1.00	29.01
ATOM	4564	CG	HIS	A	592	37.013	36.312	33.371	1.00	28.57
ATOM	4565	ND1	HIS	A	592	37.575	37.539	33.089	1.00	29.42
ATOM	4566	CD2	HIS	A	592	35.917	36.216	32.593	1.00	27.96
ATOM	4567	CE1	HIS	A	592	36.884	38.128	32.138	1.00	27.95
ATOM	4568	NE2	HIS	A	592	35.857	37.352	31.834	1.00	29.38
ATOM	4569	N	ALA	A	593	40.165	34.119	36.235	1.00	29.91
ATOM	4570	CA	ALA	A	593	40.334	33.249	37.411	1.00	30.74
ATOM	4571	C	ALA	A	593	40.597	34.076	38.670	1.00	31.49
ATOM	4572	O	ALA	A	593	40.406	33.618	39.800	1.00	31.13
ATOM	4573	CB	ALA	A	593	41.460	32.329	37.171	1.00	30.13
ATOM	4574	N	ILE	A	594	41.007	35.316	38.455	1.00	31.17
ATOM	4575	CA	ILE	A	594	41.370	36.177	39.556	1.00	31.77
ATOM	4576	C	ILE	A	594	40.275	37.221	39.868	1.00	30.82
ATOM	4577	O	ILE	A	594	40.446	38.085	40.734	1.00	30.47
ATOM	4578	CB	ILE	A	594	42.747	36.727	39.206	1.00	31.82
ATOM	4579	CG1	ILE	A	594	43.681	36.422	40.307	1.00	33.46
ATOM	4580	CG2	ILE	A	594	42.739	38.166	38.748	1.00	34.20
ATOM	4581	CD1	ILE	A	594	44.217	35.074	40.182	1.00	34.34
ATOM	4582	N	ASN	A	595	39.133	37.079	39.192	1.00	29.75
ATOM	4583	CA	ASN	A	595	37.991	37.952	39.401	1.00	29.62
ATOM	4584	C	ASN	A	595	37.646	38.132	40.897	1.00	29.97
ATOM	4585	O	ASN	A	595	37.551	37.160	41.639	1.00	28.99
ATOM	4586	CB	ASN	A	595	36.750	37.415	38.678	1.00	29.57
ATOM	4587	CG	ASN	A	595	35.624	38.427	38.684	1.00	28.63
ATOM	4588	OD1	ASN	A	595	35.857	39.582	38.438	1.00	25.10
ATOM	4589	ND2	ASN	A	595	34.417	38.002	38.992	1.00	27.23
ATOM	4590	N	ARG	A	596	37.467	39.373	41.327	1.00	30.19
ATOM	4591	CA	ARG	A	596	37.202	39.666	42.735	1.00	31.75
ATOM	4592	C	ARG	A	596	38.201	39.018	43.710	1.00	31.80
ATOM	4593	O	ARG	A	596	37.976	39.036	44.923	1.00	30.98
ATOM	4594	CB	ARG	A	596	35.733	39.305	43.130	1.00	32.08
ATOM	4595	CG	ARG	A	596	34.696	40.340	42.630	1.00	35.72
ATOM	4596	CD	ARG	A	596	33.177	39.894	42.698	1.00	41.54
ATOM	4597	NE	ARG	A	596	32.405	40.460	43.834	1.00	42.59
ATOM	4598	CZ	ARG	A	596	32.269	39.861	45.022	1.00	47.28
ATOM	4599	NH1	ARG	A	596	32.856	38.689	45.258	1.00	51.26
ATOM	4600	NH2	ARG	A	596	31.549	40.416	45.982	1.00	41.20
ATOM	4601	N	ARG	A	597	39.305	38.479	43.207	1.00	31.81
ATOM	4602	CA	ARG	A	597	40.270	37.827	44.073	1.00	32.75
ATOM	4603	C	ARG	A	597	41.699	38.280	43.789	1.00	31.55
ATOM	4604	O	ARG	A	597	42.568	37.437	43.658	1.00	30.88
ATOM	4605	CB	ARG	A	597	40.298	36.325	43.808	1.00	34.17
ATOM	4606	CG	ARG	A	597	39.136	35.511	44.204	1.00	39.92

ATOM	4607	CD	ARG	A	597	39.324	34.062	43.701	1.00	47.98
ATOM	4608	NE	ARG	A	597	38.700	33.034	44.551	1.00	53.43
ATOM	4609	CZ	ARG	A	597	39.353	32.310	45.465	1.00	57.69
ATOM	4610	NH1	ARG	A	597	40.672	32.474	45.688	1.00	57.37
ATOM	4611	NH2	ARG	A	597	38.677	31.412	46.168	1.00	59.75
ATOM	4612	N	LEU	A	598	41.967	39.573	43.672	1.00	31.19
ATOM	4613	CA	LEU	A	598	43.335	39.988	43.380	1.00	30.25
ATOM	4614	C	LEU	A	598	44.165	39.573	44.553	1.00	28.97
ATOM	4615	O	LEU	A	598	43.700	39.597	45.687	1.00	28.81
ATOM	4616	CB	LEU	A	598	43.461	41.481	43.174	1.00	30.07
ATOM	4617	CG	LEU	A	598	42.638	42.085	42.067	1.00	30.76
ATOM	4618	CD1	LEU	A	598	42.995	43.563	41.972	1.00	29.68
ATOM	4619	CD2	LEU	A	598	42.834	41.359	40.724	1.00	31.70
ATOM	4620	N	GLY	A	599	45.382	39.146	44.271	1.00	28.60
ATOM	4621	CA	GLY	A	599	46.314	38.760	45.309	1.00	28.03
ATOM	4622	C	GLY	A	599	46.217	37.315	45.727	1.00	28.30
ATOM	4623	O	GLY	A	599	46.696	36.919	46.802	1.00	27.10
ATOM	4624	N	THR	A	600	45.586	36.490	44.903	1.00	27.74
ATOM	4625	CA	THR	A	600	45.567	35.098	45.253	1.00	27.97
ATOM	4626	C	THR	A	600	46.324	34.265	44.229	1.00	28.18
ATOM	4627	O	THR	A	600	47.555	34.112	44.330	1.00	28.50
ATOM	4628	CB	THR	A	600	44.148	34.586	45.464	1.00	27.65
ATOM	4629	OG1	THR	A	600	43.360	34.878	44.315	1.00	26.47
ATOM	4630	CG2	THR	A	600	43.461	35.329	46.601	1.00	28.89
ATOM	4631	N	PHE	A	601	45.603	33.737	43.247	1.00	27.45
ATOM	4632	CA	PHE	A	601	46.192	32.799	42.293	1.00	28.22
ATOM	4633	C	PHE	A	601	47.363	33.381	41.488	1.00	27.67
ATOM	4634	O	PHE	A	601	48.336	32.689	41.225	1.00	29.22
ATOM	4635	CB	PHE	A	601	45.132	32.249	41.343	1.00	28.13
ATOM	4636	CG	PHE	A	601	43.997	31.581	42.005	1.00	30.17
ATOM	4637	CD1	PHE	A	601	44.191	30.643	42.999	1.00	33.45
ATOM	4638	CD2	PHE	A	601	42.706	31.884	41.633	1.00	35.26
ATOM	4639	CE1	PHE	A	601	43.127	30.049	43.604	1.00	33.70
ATOM	4640	CE2	PHE	A	601	41.642	31.268	42.218	1.00	33.26
ATOM	4641	CZ	PHE	A	601	41.852	30.355	43.202	1.00	36.32
ATOM	4642	N	GLU	A	602	47.310	34.654	41.137	1.00	27.82
ATOM	4643	CA	GLU	A	602	48.419	35.256	40.392	1.00	27.51
ATOM	4644	C	GLU	A	602	49.676	35.166	41.258	1.00	27.74
ATOM	4645	O	GLU	A	602	50.784	34.902	40.760	1.00	28.48
ATOM	4646	CB	GLU	A	602	48.095	36.702	39.939	1.00	26.94
ATOM	4647	CG	GLU	A	602	48.289	37.798	40.972	1.00	27.51
ATOM	4648	CD	GLU	A	602	47.038	38.130	41.774	1.00	28.08
ATOM	4649	OE1	GLU	A	602	46.393	37.199	42.267	1.00	29.58
ATOM	4650	OE2	GLU	A	602	46.686	39.341	41.890	1.00	26.35
ATOM	4651	N	VAL	A	603	49.494	35.332	42.562	1.00	28.37
ATOM	4652	CA	VAL	A	603	50.600	35.245	43.516	1.00	28.70
ATOM	4653	C	VAL	A	603	51.096	33.806	43.640	1.00	29.00
ATOM	4654	O	VAL	A	603	52.237	33.523	43.361	1.00	30.16
ATOM	4655	CB	VAL	A	603	50.156	35.787	44.906	1.00	29.48
ATOM	4656	CG1	VAL	A	603	51.251	35.695	45.939	1.00	28.54
ATOM	4657	CG2	VAL	A	603	49.650	37.230	44.762	1.00	29.58
ATOM	4658	N	GLU	A	604	50.238	32.897	44.061	1.00	30.18
ATOM	4659	CA	GLU	A	604	50.586	31.481	44.169	1.00	31.60
ATOM	4660	C	GLU	A	604	51.249	30.915	42.919	1.00	31.34
ATOM	4661	O	GLU	A	604	52.127	30.060	43.006	1.00	30.85
ATOM	4662	CB	GLU	A	604	49.326	30.629	44.364	1.00	32.23
ATOM	4663	CG	GLU	A	604	48.700	30.585	45.733	1.00	38.37
ATOM	4664	CD	GLU	A	604	47.337	29.897	45.668	1.00	44.37
ATOM	4665	OE1	GLU	A	604	47.261	28.723	45.144	1.00	45.08
ATOM	4666	OE2	GLU	A	604	46.351	30.558	46.091	1.00	45.55
ATOM	4667	N	ASP	A	605	50.782	31.332	41.746	1.00	31.12
ATOM	4668	CA	ASP	A	605	51.362	30.797	40.513	1.00	30.50
ATOM	4669	C	ASP	A	605	52.785	31.271	40.283	1.00	30.00
ATOM	4670	O	ASP	A	605	53.571	30.559	39.716	1.00	30.11
ATOM	4671	CB	ASP	A	605	50.468	31.123	39.334	1.00	30.77
ATOM	4672	CG	ASP	A	605	49.164	30.325	39.357	1.00	31.53
ATOM	4673	OD1	ASP	A	605	49.077	29.378	40.177	1.00	31.02
ATOM	4674	OD2	ASP	A	605	48.180	30.583	38.602	1.00	28.91
ATOM	4675	N	GLN	A	606	53.136	32.464	40.740	1.00	30.08
ATOM	4676	CA	GLN	A	606	54.516	32.921	40.641	1.00	29.63

ATOM	4677	C	GLN	A	606	55.396	32.053	41.538	1.00	30.06
ATOM	4678	O	GLN	A	606	56.483	31.648	41.155	1.00	29.24
ATOM	4679	CB	GLN	A	606	54.645	34.403	41.028	1.00	29.22
ATOM	4680	CG	GLN	A	606	54.028	35.364	40.051	1.00	28.78
ATOM	4681	CD	GLN	A	606	54.724	35.385	38.726	1.00	28.81
ATOM	4682	OE1	GLN	A	606	55.950	35.570	38.649	1.00	33.30
ATOM	4683	NE2	GLN	A	606	53.977	35.165	37.682	1.00	23.28
ATOM	4684	N	ILE	A	607	54.916	31.767	42.741	1.00	31.56
ATOM	4685	CA	ILE	A	607	55.651	30.919	43.672	1.00	32.01
ATOM	4686	C	ILE	A	607	55.812	29.550	43.042	1.00	33.52
ATOM	4687	O	ILE	A	607	56.917	28.983	43.044	1.00	33.45
ATOM	4688	CB	ILE	A	607	54.896	30.790	45.016	1.00	32.41
ATOM	4689	CG1	ILE	A	607	54.992	32.075	45.834	1.00	32.46
ATOM	4690	CG2	ILE	A	607	55.463	29.677	45.842	1.00	32.05
ATOM	4691	CD1	ILE	A	607	54.085	32.086	47.054	1.00	33.73
ATOM	4692	N	GLU	A	608	54.734	29.021	42.460	1.00	34.16
ATOM	4693	CA	GLU	A	608	54.821	27.694	41.843	1.00	35.73
ATOM	4694	C	GLU	A	608	55.761	27.695	40.616	1.00	35.46
ATOM	4695	O	GLU	A	608	56.487	26.736	40.398	1.00	35.66
ATOM	4696	CB	GLU	A	608	53.418	27.127	41.539	1.00	36.56
ATOM	4697	CG	GLU	A	608	53.359	25.710	40.955	1.00	40.03
ATOM	4698	CD	GLU	A	608	53.927	24.616	41.855	1.00	44.24
ATOM	4699	OE1	GLU	A	608	53.808	24.703	43.100	1.00	44.37
ATOM	4700	OE2	GLU	A	608	54.515	23.652	41.300	1.00	48.00
ATOM	4701	N	ALA	A	609	55.802	28.788	39.859	1.00	34.52
ATOM	4702	CA	ALA	A	609	56.667	28.828	38.693	1.00	34.51
ATOM	4703	C	ALA	A	609	58.149	28.716	39.114	1.00	34.13
ATOM	4704	O	ALA	A	609	58.961	28.006	38.469	1.00	31.78
ATOM	4705	CB	ALA	A	609	56.437	30.088	37.884	1.00	33.49
ATOM	4706	N	ALA	A	610	58.479	29.447	40.171	1.00	34.05
ATOM	4707	CA	ALA	A	610	59.832	29.413	40.730	1.00	34.67
ATOM	4708	C	ALA	A	610	60.224	28.026	41.238	1.00	35.08
ATOM	4709	O	ALA	A	610	61.354	27.575	41.035	1.00	33.89
ATOM	4710	CB	ALA	A	610	59.988	30.448	41.822	1.00	34.17
ATOM	4711	N	ARG	A	611	59.298	27.339	41.883	1.00	36.94
ATOM	4712	CA	ARG	A	611	59.574	25.963	42.292	1.00	38.63
ATOM	4713	C	ARG	A	611	59.873	25.104	41.068	1.00	39.64
ATOM	4714	O	ARG	A	611	60.775	24.276	41.108	1.00	39.08
ATOM	4715	CB	ARG	A	611	58.406	25.322	43.009	1.00	38.66
ATOM	4716	CG	ARG	A	611	58.196	25.752	44.416	1.00	40.91
ATOM	4717	CD	ARG	A	611	57.304	24.810	45.195	1.00	42.36
ATOM	4718	NE	ARG	A	611	56.252	25.580	45.850	1.00	47.02
ATOM	4719	CZ	ARG	A	611	56.222	25.897	47.134	1.00	49.37
ATOM	4720	NH1	ARG	A	611	57.180	25.503	47.966	1.00	51.26
ATOM	4721	NH2	ARG	A	611	55.212	26.616	47.590	1.00	51.85
ATOM	4722	N	GLN	A	612	59.095	25.283	40.002	1.00	40.69
ATOM	4723	CA	GLN	A	612	59.295	24.516	38.788	1.00	42.53
ATOM	4724	C	GLN	A	612	60.617	24.888	38.130	1.00	43.64
ATOM	4725	O	GLN	A	612	61.286	24.045	37.494	1.00	44.69
ATOM	4726	CB	GLN	A	612	58.167	24.761	37.797	1.00	42.95
ATOM	4727	CG	GLN	A	612	56.828	24.301	38.290	1.00	44.37
ATOM	4728	CD	GLN	A	612	56.468	22.960	37.723	1.00	45.58
ATOM	4729	OE1	GLN	A	612	56.577	22.774	36.523	1.00	49.79
ATOM	4730	NE2	GLN	A	612	56.055	22.034	38.570	1.00	46.49
ATOM	4731	N	PHE	A	613	61.031	26.133	38.280	1.00	44.14
ATOM	4732	CA	PHE	A	613	62.286	26.495	37.660	1.00	44.66
ATOM	4733	C	PHE	A	613	63.380	25.812	38.424	1.00	46.53
ATOM	4734	O	PHE	A	613	64.423	25.517	37.859	1.00	46.58
ATOM	4735	CB	PHE	A	613	62.494	28.000	37.619	1.00	44.25
ATOM	4736	CG	PHE	A	613	61.499	28.723	36.770	1.00	42.36
ATOM	4737	CD1	PHE	A	613	60.871	28.089	35.727	1.00	41.01
ATOM	4738	CD2	PHE	A	613	61.187	30.039	37.024	1.00	41.38
ATOM	4739	CE1	PHE	A	613	59.947	28.756	34.966	1.00	42.23
ATOM	4740	CE2	PHE	A	613	60.273	30.704	36.251	1.00	41.19
ATOM	4741	CZ	PHE	A	613	59.652	30.063	35.227	1.00	40.85
ATOM	4742	N	SER	A	614	63.143	25.545	39.710	1.00	48.55
ATOM	4743	CA	SER	A	614	64.157	24.901	40.540	1.00	50.42
ATOM	4744	C	SER	A	614	64.372	23.447	40.118	1.00	52.01
ATOM	4745	O	SER	A	614	65.508	23.011	40.012	1.00	52.61
ATOM	4746	CB	SER	A	614	63.803	25.011	42.013	1.00	50.48

ATOM	4747	OG	SER	A	614	63.563	26.367	42.342	1.00	50.30
ATOM	4748	N	LYS	A	615	63.304	22.701	39.853	1.00	53.76
ATOM	4749	CA	LYS	A	615	63.475	21.333	39.354	1.00	54.92
ATOM	4750	C	LYS	A	615	64.531	21.398	38.257	1.00	55.07
ATOM	4751	O	LYS	A	615	65.654	20.886	38.439	1.00	55.88
ATOM	4752	CB	LYS	A	615	62.185	20.765	38.754	1.00	55.28
ATOM	4753	CG	LYS	A	615	61.109	20.315	39.739	1.00	57.19
ATOM	4754	CD	LYS	A	615	59.904	19.747	38.949	1.00	59.39
ATOM	4755	CE	LYS	A	615	58.582	19.712	39.737	1.00	60.46
ATOM	4756	NZ	LYS	A	615	57.504	18.979	38.966	1.00	60.49
ATOM	4757	N	MET	A	616	64.154	22.018	37.124	1.00	54.41
ATOM	4758	CA	MET	A	616	65.052	22.231	35.989	1.00	53.94
ATOM	4759	C	MET	A	616	66.436	22.449	36.593	1.00	52.94
ATOM	4760	O	MET	A	616	66.666	23.440	37.259	1.00	53.82
ATOM	4761	CB	MET	A	616	64.651	23.477	35.188	1.00	53.70
ATOM	4762	CG	MET	A	616	63.228	23.495	34.607	1.00	53.76
ATOM	4763	SD	MET	A	616	62.789	25.145	33.893	1.00	52.40
ATOM	4764	CE	MET	A	616	61.286	24.766	33.068	1.00	52.15
ATOM	4765	N	GLY	A	617	67.354	21.525	36.364	1.00	51.47
ATOM	4766	CA	GLY	A	617	68.633	21.534	37.053	1.00	49.40
ATOM	4767	C	GLY	A	617	69.663	22.605	36.777	1.00	48.16
ATOM	4768	O	GLY	A	617	70.841	22.369	37.016	1.00	48.41
ATOM	4769	N	PHE	A	618	69.287	23.791	36.306	1.00	46.53
ATOM	4770	CA	PHE	A	618	70.324	24.798	36.074	1.00	44.89
ATOM	4771	C	PHE	A	618	70.160	26.046	36.959	1.00	43.22
ATOM	4772	O	PHE	A	618	70.785	27.085	36.758	1.00	42.11
ATOM	4773	CB	PHE	A	618	70.412	25.149	34.595	1.00	44.90
ATOM	4774	CG	PHE	A	618	69.112	25.510	33.980	1.00	46.03
ATOM	4775	CD1	PHE	A	618	68.587	26.780	34.142	1.00	47.22
ATOM	4776	CD2	PHE	A	618	68.422	24.598	33.204	1.00	46.83
ATOM	4777	CE1	PHE	A	618	67.381	27.120	33.564	1.00	46.69
ATOM	4778	CE2	PHE	A	618	67.213	24.949	32.598	1.00	46.58
ATOM	4779	CZ	PHE	A	618	66.696	26.200	32.797	1.00	47.72
ATOM	4780	N	VAL	A	619	69.346	25.901	37.981	1.00	41.96
ATOM	4781	CA	VAL	A	619	69.077	26.980	38.871	1.00	41.17
ATOM	4782	C	VAL	A	619	69.578	26.625	40.240	1.00	40.50
ATOM	4783	O	VAL	A	619	69.354	25.522	40.721	1.00	39.68
ATOM	4784	CB	VAL	A	619	67.586	27.235	38.920	1.00	41.06
ATOM	4785	CG1	VAL	A	619	67.224	28.165	40.078	1.00	40.61
ATOM	4786	CG2	VAL	A	619	67.136	27.807	37.593	1.00	41.96
ATOM	4787	N	ASP	A	620	70.247	27.573	40.874	1.00	40.71
ATOM	4788	CA	ASP	A	620	70.709	27.386	42.251	1.00	41.12
ATOM	4789	C	ASP	A	620	69.556	27.739	43.152	1.00	40.94
ATOM	4790	O	ASP	A	620	69.176	28.901	43.251	1.00	40.18
ATOM	4791	CB	ASP	A	620	71.879	28.297	42.555	1.00	41.40
ATOM	4792	CG	ASP	A	620	72.267	28.286	44.023	1.00	42.62
ATOM	4793	OD1	ASP	A	620	72.863	29.274	44.465	1.00	45.71
ATOM	4794	OD2	ASP	A	620	72.035	27.352	44.813	1.00	46.38
ATOM	4795	N	ASN	A	621	68.988	26.777	43.849	1.00	41.25
ATOM	4796	CA	ASN	A	621	67.804	27.161	44.584	1.00	41.89
ATOM	4797	C	ASN	A	621	68.046	27.908	45.909	1.00	41.34
ATOM	4798	O	ASN	A	621	67.099	28.277	46.589	1.00	39.99
ATOM	4799	CB	ASN	A	621	66.766	26.036	44.645	1.00	43.11
ATOM	4800	CG	ASN	A	621	67.231	24.853	45.397	1.00	45.02
ATOM	4801	OD1	ASN	A	621	67.014	23.714	44.973	1.00	50.87
ATOM	4802	ND2	ASN	A	621	67.845	25.087	46.526	1.00	46.65
ATOM	4803	N	LYS	A	622	69.310	28.208	46.227	1.00	40.43
ATOM	4804	CA	LYS	A	622	69.589	29.069	47.385	1.00	39.96
ATOM	4805	C	LYS	A	622	69.584	30.538	46.948	1.00	38.41
ATOM	4806	O	LYS	A	622	69.594	31.442	47.777	1.00	38.04
ATOM	4807	CB	LYS	A	622	70.965	28.750	47.995	1.00	40.47
ATOM	4808	CG	LYS	A	622	71.167	27.286	48.347	1.00	43.46
ATOM	4809	CD	LYS	A	622	72.658	26.933	48.474	1.00	48.43
ATOM	4810	CE	LYS	A	622	72.827	25.462	48.888	1.00	50.37
ATOM	4811	NZ	LYS	A	622	74.269	25.016	48.993	1.00	54.19
ATOM	4812	N	ARG	A	623	69.596	30.773	45.639	1.00	36.15
ATOM	4813	CA	ARG	A	623	69.659	32.138	45.125	1.00	34.54
ATOM	4814	C	ARG	A	623	68.512	32.428	44.155	1.00	33.26
ATOM	4815	O	ARG	A	623	68.666	32.419	42.944	1.00	30.78
ATOM	4816	CB	ARG	A	623	71.044	32.401	44.507	1.00	34.09

ATOM	4817	CG	ARG	A	623	72.182	32.316	45.567	1.00	32.92
ATOM	4818	CD	ARG	A	623	73.528	32.690	45.050	1.00	33.79
ATOM	4819	NE	ARG	A	623	74.101	31.638	44.214	1.00	34.41
ATOM	4820	CZ	ARG	A	623	74.996	31.847	43.264	1.00	35.70
ATOM	4821	NH1	ARG	A	623	75.434	33.083	43.002	1.00	33.42
ATOM	4822	NH2	ARG	A	623	75.469	30.810	42.572	1.00	35.07
ATOM	4823	N	ILE	A	624	67.339	32.630	44.729	1.00	32.55
ATOM	4824	CA	ILE	A	624	66.173	33.001	43.941	1.00	32.44
ATOM	4825	C	ILE	A	624	65.601	34.288	44.517	1.00	31.62
ATOM	4826	O	ILE	A	624	65.414	34.462	45.733	1.00	30.99
ATOM	4827	CB	ILE	A	624	65.194	31.896	43.906	1.00	32.85
ATOM	4828	CG1	ILE	A	624	65.898	30.628	43.386	1.00	34.14
ATOM	4829	CG2	ILE	A	624	64.053	32.277	42.979	1.00	33.93
ATOM	4830	CD1	ILE	A	624	64.961	29.405	43.207	1.00	36.13
ATOM	4831	N	ALA	A	625	65.415	35.240	43.638	1.00	30.01
ATOM	4832	CA	ALA	A	625	64.955	36.521	44.074	1.00	28.84
ATOM	4833	C	ALA	A	625	63.726	36.829	43.262	1.00	27.42
ATOM	4834	O	ALA	A	625	63.473	36.172	42.250	1.00	25.18
ATOM	4835	CB	ALA	A	625	66.014	37.558	43.807	1.00	28.63
ATOM	4836	N	ILE	A	626	63.021	37.872	43.677	1.00	26.42
ATOM	4837	CA	ILE	A	626	61.871	38.334	42.938	1.00	26.38
ATOM	4838	C	ILE	A	626	61.796	39.844	42.987	1.00	25.89
ATOM	4839	O	ILE	A	626	62.191	40.471	43.962	1.00	25.73
ATOM	4840	CB	ILE	A	626	60.623	37.689	43.494	1.00	26.45
ATOM	4841	CG1	ILE	A	626	59.404	38.259	42.780	1.00	27.17
ATOM	4842	CG2	ILE	A	626	60.566	37.887	45.004	1.00	26.71
ATOM	4843	CD1	ILE	A	626	58.192	37.452	42.992	1.00	29.50
ATOM	4844	N	TRP	A	627	61.388	40.449	41.885	1.00	25.90
ATOM	4845	CA	TRP	A	627	61.195	41.883	41.870	1.00	25.90
ATOM	4846	C	TRP	A	627	60.116	42.345	40.938	1.00	26.04
ATOM	4847	O	TRP	A	627	59.762	41.680	39.959	1.00	25.99
ATOM	4848	CB	TRP	A	627	62.462	42.621	41.521	1.00	25.37
ATOM	4849	CG	TRP	A	627	62.614	42.982	40.096	1.00	26.40
ATOM	4850	CD1	TRP	A	627	63.003	42.147	39.090	1.00	24.57
ATOM	4851	CD2	TRP	A	627	62.464	44.288	39.505	1.00	24.31
ATOM	4852	NE1	TRP	A	627	63.091	42.845	37.917	1.00	26.92
ATOM	4853	CE2	TRP	A	627	62.768	44.160	38.139	1.00	24.75
ATOM	4854	CE3	TRP	A	627	62.081	45.546	39.994	1.00	23.17
ATOM	4855	CZ2	TRP	A	627	62.709	45.241	37.240	1.00	24.25
ATOM	4856	CZ3	TRP	A	627	62.051	46.630	39.131	1.00	23.08
ATOM	4857	CH2	TRP	A	627	62.350	46.473	37.744	1.00	23.04
ATOM	4858	N	GLY	A	628	59.619	43.538	41.219	1.00	25.40
ATOM	4859	CA	GLY	A	628	58.606	44.090	40.360	1.00	24.79
ATOM	4860	C	GLY	A	628	58.254	45.494	40.719	1.00	23.77
ATOM	4861	O	GLY	A	628	58.611	45.979	41.786	1.00	21.64
ATOM	4862	N	TRP	A	629	57.489	46.095	39.816	1.00	23.74
ATOM	4863	CA	TRP	A	629	57.087	47.503	39.854	1.00	24.09
ATOM	4864	C	TRP	A	629	55.580	47.499	39.761	1.00	23.81
ATOM	4865	O	TRP	A	629	55.006	46.713	39.018	1.00	23.65
ATOM	4866	CB	TRP	A	629	57.675	48.188	38.630	1.00	24.46
ATOM	4867	CG	TRP	A	629	57.929	49.640	38.721	1.00	25.53
ATOM	4868	CD1	TRP	A	629	57.010	50.618	38.921	1.00	26.25
ATOM	4869	CD2	TRP	A	629	59.186	50.315	38.506	1.00	23.91
ATOM	4870	NE1	TRP	A	629	57.612	51.854	38.894	1.00	25.51
ATOM	4871	CE2	TRP	A	629	58.952	51.692	38.636	1.00	26.50
ATOM	4872	CE3	TRP	A	629	60.480	49.895	38.223	1.00	20.13
ATOM	4873	CZ2	TRP	A	629	59.973	52.646	38.490	1.00	25.09
ATOM	4874	CZ3	TRP	A	629	61.494	50.854	38.105	1.00	21.41
ATOM	4875	CH2	TRP	A	629	61.233	52.194	38.231	1.00	21.98
ATOM	4876	N	SER	A	630	54.940	48.347	40.549	1.00	23.53
ATOM	4877	CA	SER	A	630	53.476	48.495	40.538	1.00	23.81
ATOM	4878	C	SER	A	630	52.706	47.239	40.961	1.00	23.46
ATOM	4879	O	SER	A	630	52.886	46.729	42.066	1.00	24.58
ATOM	4880	CB	SER	A	630	53.085	48.945	39.160	1.00	23.51
ATOM	4881	OG	SER	A	630	52.141	49.969	39.276	1.00	23.88
ATOM	4882	N	TYR	A	631	51.875	46.707	40.087	1.00	22.70
ATOM	4883	CA	TYR	A	631	51.241	45.474	40.384	1.00	21.81
ATOM	4884	C	TYR	A	631	52.357	44.489	40.697	1.00	22.55
ATOM	4885	O	TYR	A	631	52.188	43.602	41.532	1.00	21.39
ATOM	4886	CB	TYR	A	631	50.377	44.993	39.196	1.00	21.65

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ATOM   4887  CG  TYR A 631      49.347  44.009  39.632  1.00 21.44
ATOM   4888  CD1 TYR A 631      49.681  42.705  39.911  1.00 21.56
ATOM   4889  CD2 TYR A 631      48.049  44.406  39.883  1.00 24.94
ATOM   4890  CE1 TYR A 631      48.712  41.805  40.385  1.00 23.19
ATOM   4891  CE2 TYR A 631      47.076  43.499  40.331  1.00 24.52
ATOM   4892  CZ  TYR A 631      47.414  42.205  40.586  1.00 23.00
ATOM   4893  OH  TYR A 631      46.440  41.313  41.053  1.00 20.91
ATOM   4894  N   GLY A 632      53.494  44.629  40.006  1.00 22.19
ATOM   4895  CA  GLY A 632      54.627  43.746  40.239  1.00 23.91
ATOM   4896  C   GLY A 632      55.255  43.912  41.627  1.00 23.98
ATOM   4897  O   GLY A 632      55.741  42.950  42.239  1.00 23.20
ATOM   4898  N   GLY A 633      55.236  45.145  42.130  1.00 24.94
ATOM   4899  CA  GLY A 633      55.690  45.393  43.496  1.00 24.92
ATOM   4900  C   GLY A 633      54.733  44.715  44.492  1.00 24.75
ATOM   4901  O   GLY A 633      55.158  44.081  45.488  1.00 23.82
ATOM   4902  N   TYR A 634      53.439  44.834  44.202  1.00 24.12
ATOM   4903  CA  TYR A 634      52.419  44.239  45.024  1.00 23.97
ATOM   4904  C   TYR A 634      52.605  42.715  45.065  1.00 24.59
ATOM   4905  O   TYR A 634      52.688  42.100  46.134  1.00 24.79
ATOM   4906  CB  TYR A 634      51.036  44.605  44.478  1.00 24.31
ATOM   4907  CG  TYR A 634      49.889  43.855  45.111  1.00 23.82
ATOM   4908  CD1 TYR A 634      49.537  44.076  46.413  1.00 22.78
ATOM   4909  CD2 TYR A 634      49.141  42.944  44.381  1.00 21.52
ATOM   4910  CE1 TYR A 634      48.510  43.377  46.994  1.00 22.94
ATOM   4911  CE2 TYR A 634      48.089  42.282  44.941  1.00 22.09
ATOM   4912  CZ  TYR A 634      47.766  42.496  46.246  1.00 22.45
ATOM   4913  OH  TYR A 634      46.713  41.808  46.813  1.00 23.31
ATOM   4914  N   VAL A 635      52.679  42.094  43.911  1.00 24.15
ATOM   4915  CA  VAL A 635      52.865  40.652  43.888  1.00 24.87
ATOM   4916  C   VAL A 635      54.173  40.241  44.517  1.00 24.65
ATOM   4917  O   VAL A 635      54.235  39.251  45.199  1.00 24.18
ATOM   4918  CB  VAL A 635      52.755  40.093  42.452  1.00 24.90
ATOM   4919  CG1 VAL A 635      53.081  38.613  42.426  1.00 25.11
ATOM   4920  CG2 VAL A 635      51.345  40.283  41.965  1.00 24.65
ATOM   4921  N   THR A 636      55.221  41.004  44.284  1.00 25.12
ATOM   4922  CA  THR A 636      56.512  40.709  44.864  1.00 25.36
ATOM   4923  C   THR A 636      56.383  40.657  46.361  1.00 24.77
ATOM   4924  O   THR A 636      56.873  39.736  47.028  1.00 24.50
ATOM   4925  CB  THR A 636      57.531  41.829  44.459  1.00 26.95
ATOM   4926  OG1 THR A 636      58.035  41.606  43.126  1.00 26.06
ATOM   4927  CG2 THR A 636      58.823  41.791  45.315  1.00 26.91
ATOM   4928  N   SER A 637      55.673  41.632  46.901  1.00 24.63
ATOM   4929  CA  SER A 637      55.569  41.760  48.342  1.00 24.18
ATOM   4930  C   SER A 637      54.662  40.683  48.920  1.00 25.28
ATOM   4931  O   SER A 637      54.916  40.181  50.017  1.00 24.93
ATOM   4932  CB  SER A 637      55.066  43.144  48.665  1.00 23.48
ATOM   4933  OG  SER A 637      55.954  44.085  48.097  1.00 22.02
ATOM   4934  N   MET A 638      53.631  40.292  48.167  1.00 24.69
ATOM   4935  CA  MET A 638      52.741  39.262  48.643  1.00 24.72
ATOM   4936  C   MET A 638      53.465  37.929  48.646  1.00 24.85
ATOM   4937  O   MET A 638      53.264  37.130  49.549  1.00 23.44
ATOM   4938  CB  MET A 638      51.476  39.197  47.775  1.00 25.04
ATOM   4939  CG  MET A 638      50.589  40.396  47.989  1.00 25.97
ATOM   4940  SD  MET A 638      49.706  40.451  49.503  1.00 24.26
ATOM   4941  CE  MET A 638      48.273  39.399  49.121  1.00 28.34
ATOM   4942  N   VAL A 639      54.286  37.675  47.628  1.00 24.38
ATOM   4943  CA  VAL A 639      55.119  36.483  47.614  1.00 25.85
ATOM   4944  C   VAL A 639      56.196  36.492  48.717  1.00 26.46
ATOM   4945  O   VAL A 639      56.373  35.522  49.392  1.00 27.64
ATOM   4946  CB  VAL A 639      55.908  36.344  46.272  1.00 26.72
ATOM   4947  CG1 VAL A 639      56.962  35.246  46.381  1.00 26.16
ATOM   4948  CG2 VAL A 639      54.979  36.090  45.121  1.00 27.54
ATOM   4949  N   LEU A 640      56.939  37.573  48.899  1.00 27.30
ATOM   4950  CA  LEU A 640      57.951  37.538  49.936  1.00 28.97
ATOM   4951  C   LEU A 640      57.278  37.246  51.260  1.00 30.01
ATOM   4952  O   LEU A 640      57.859  36.559  52.084  1.00 30.46
ATOM   4953  CB  LEU A 640      58.738  38.831  50.055  1.00 28.39
ATOM   4954  CG  LEU A 640      59.541  39.123  48.818  1.00 30.68
ATOM   4955  CD1 LEU A 640      59.983  40.560  48.808  1.00 31.22
ATOM   4956  CD2 LEU A 640      60.717  38.152  48.770  1.00 32.89
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ATOM	4957	N	GLY	A	641	56.060	37.755	51.445	1.00	30.64
ATOM	4958	CA	GLY	A	641	55.335	37.561	52.683	1.00	31.58
ATOM	4959	C	GLY	A	641	54.415	36.363	52.781	1.00	32.11
ATOM	4960	O	GLY	A	641	53.599	36.272	53.722	1.00	32.54
ATOM	4961	N	SER	A	642	54.541	35.419	51.854	1.00	31.43
ATOM	4962	CA	SER	A	642	53.673	34.249	51.887	1.00	30.86
ATOM	4963	C	SER	A	642	54.255	33.136	52.764	1.00	31.44
ATOM	4964	O	SER	A	642	53.576	32.123	53.033	1.00	31.55
ATOM	4965	CB	SER	A	642	53.543	33.701	50.471	1.00	30.30
ATOM	4966	OG	SER	A	642	54.803	33.191	50.091	1.00	28.39
ATOM	4967	N	GLY	A	643	55.517	33.299	53.165	1.00	31.79
ATOM	4968	CA	GLY	A	643	56.219	32.290	53.944	1.00	32.28
ATOM	4969	C	GLY	A	643	56.597	31.034	53.160	1.00	32.91
ATOM	4970	O	GLY	A	643	56.811	29.976	53.738	1.00	32.68
ATOM	4971	N	SER	A	644	56.717	31.140	51.843	1.00	33.20
ATOM	4972	CA	SER	A	644	57.001	29.960	51.022	1.00	33.35
ATOM	4973	C	SER	A	644	58.383	29.357	51.263	1.00	33.95
ATOM	4974	O	SER	A	644	58.575	28.159	51.086	1.00	33.80
ATOM	4975	CB	SER	A	644	56.890	30.322	49.557	1.00	33.20
ATOM	4976	OG	SER	A	644	58.097	30.922	49.129	1.00	33.53
ATOM	4977	N	GLY	A	645	59.340	30.193	51.651	1.00	33.66
ATOM	4978	CA	GLY	A	645	60.710	29.748	51.844	1.00	33.54
ATOM	4979	C	GLY	A	645	61.443	29.611	50.508	1.00	33.70
ATOM	4980	O	GLY	A	645	62.651	29.390	50.463	1.00	32.41
ATOM	4981	N	VAL	A	646	60.714	29.802	49.411	1.00	33.25
ATOM	4982	CA	VAL	A	646	61.314	29.684	48.086	1.00	33.17
ATOM	4983	C	VAL	A	646	62.227	30.858	47.752	1.00	32.53
ATOM	4984	O	VAL	A	646	63.240	30.663	47.099	1.00	33.19
ATOM	4985	CB	VAL	A	646	60.226	29.583	46.990	1.00	33.15
ATOM	4986	CG1	VAL	A	646	60.849	29.618	45.576	1.00	33.99
ATOM	4987	CG2	VAL	A	646	59.397	28.324	47.195	1.00	33.67
ATOM	4988	N	PHE	A	647	61.884	32.075	48.168	1.00	31.56
ATOM	4989	CA	PHE	A	647	62.712	33.216	47.773	1.00	30.96
ATOM	4990	C	PHE	A	647	63.624	33.734	48.881	1.00	30.94
ATOM	4991	O	PHE	A	647	63.248	33.746	50.065	1.00	30.19
ATOM	4992	CB	PHE	A	647	61.856	34.356	47.230	1.00	30.77
ATOM	4993	CG	PHE	A	647	60.940	33.951	46.099	1.00	30.66
ATOM	4994	CD1	PHE	A	647	59.737	33.315	46.354	1.00	29.51
ATOM	4995	CD2	PHE	A	647	61.290	34.223	44.789	1.00	27.92
ATOM	4996	CE1	PHE	A	647	58.887	32.943	45.286	1.00	32.03
ATOM	4997	CE2	PHE	A	647	60.466	33.866	43.755	1.00	30.57
ATOM	4998	CZ	PHE	A	647	59.261	33.223	43.991	1.00	27.73
ATOM	4999	N	LYS	A	648	64.815	34.169	48.474	1.00	30.78
ATOM	5000	CA	LYS	A	648	65.806	34.693	49.399	1.00	31.48
ATOM	5001	C	LYS	A	648	65.645	36.169	49.604	1.00	31.25
ATOM	5002	O	LYS	A	648	65.859	36.687	50.675	1.00	30.03
ATOM	5003	CB	LYS	A	648	67.221	34.458	48.881	1.00	32.00
ATOM	5004	CG	LYS	A	648	68.309	34.871	49.892	1.00	30.90
ATOM	5005	CD	LYS	A	648	69.674	34.331	49.513	1.00	31.40
ATOM	5006	CE	LYS	A	648	70.674	34.600	50.627	1.00	31.69
ATOM	5007	NZ	LYS	A	648	71.597	35.694	50.288	1.00	34.00
ATOM	5008	N	CYS	A	649	65.267	36.857	48.546	1.00	32.32
ATOM	5009	CA	CYS	A	649	65.195	38.300	48.597	1.00	32.89
ATOM	5010	C	CYS	A	649	64.291	38.773	47.485	1.00	32.18
ATOM	5011	O	CYS	A	649	63.949	37.991	46.601	1.00	32.39
ATOM	5012	CB	CYS	A	649	66.594	38.878	48.433	1.00	33.39
ATOM	5013	SG	CYS	A	649	67.424	38.414	46.901	1.00	38.32
ATOM	5014	N	GLY	A	650	63.907	40.043	47.536	1.00	30.82
ATOM	5015	CA	GLY	A	650	63.102	40.625	46.489	1.00	29.96
ATOM	5016	C	GLY	A	650	62.993	42.133	46.627	1.00	29.16
ATOM	5017	O	GLY	A	650	63.251	42.698	47.702	1.00	27.45
ATOM	5018	N	ILE	A	651	62.593	42.781	45.534	1.00	27.34
ATOM	5019	CA	ILE	A	651	62.516	44.223	45.489	1.00	26.82
ATOM	5020	C	ILE	A	651	61.156	44.660	44.990	1.00	26.67
ATOM	5021	O	ILE	A	651	60.721	44.216	43.920	1.00	26.22
ATOM	5022	CB	ILE	A	651	63.526	44.765	44.531	1.00	27.03
ATOM	5023	CG1	ILE	A	651	64.910	44.190	44.820	1.00	27.69
ATOM	5024	CG2	ILE	A	651	63.528	46.266	44.570	1.00	27.62
ATOM	5025	CD1	ILE	A	651	65.992	44.754	43.919	1.00	27.67
ATOM	5026	N	ALA	A	652	60.529	45.576	45.726	1.00	25.42

ATOM	5027	CA	ALA	A	652	59.212	46.085	45.369	1.00	25.10
ATOM	5028	C	ALA	A	652	59.287	47.556	45.063	1.00	24.43
ATOM	5029	O	ALA	A	652	59.646	48.354	45.922	1.00	22.80
ATOM	5030	CB	ALA	A	652	58.224	45.831	46.519	1.00	24.99
ATOM	5031	N	VAL	A	653	58.928	47.924	43.831	1.00	23.92
ATOM	5032	CA	VAL	A	653	58.965	49.319	43.441	1.00	23.46
ATOM	5033	C	VAL	A	653	57.594	49.880	43.243	1.00	23.10
ATOM	5034	O	VAL	A	653	56.831	49.360	42.421	1.00	24.71
ATOM	5035	CB	VAL	A	653	59.806	49.499	42.187	1.00	23.90
ATOM	5036	CG1	VAL	A	653	59.927	50.968	41.798	1.00	21.62
ATOM	5037	CG2	VAL	A	653	61.153	48.864	42.415	1.00	24.79
ATOM	5038	N	ALA	A	654	57.313	50.956	43.970	1.00	21.46
ATOM	5039	CA	ALA	A	654	56.044	51.634	43.964	1.00	21.63
ATOM	5040	C	ALA	A	654	54.883	50.657	43.980	1.00	22.36
ATOM	5041	O	ALA	A	654	54.016	50.702	43.148	1.00	22.12
ATOM	5042	CB	ALA	A	654	55.930	52.551	42.754	1.00	21.62
ATOM	5043	N	PRO	A	655	54.846	49.788	44.962	1.00	23.37
ATOM	5044	CA	PRO	A	655	53.793	48.772	45.019	1.00	23.85
ATOM	5045	C	PRO	A	655	52.444	49.278	45.479	1.00	24.40
ATOM	5046	O	PRO	A	655	52.332	50.249	46.245	1.00	23.99
ATOM	5047	CB	PRO	A	655	54.311	47.794	46.052	1.00	24.57
ATOM	5048	CG	PRO	A	655	55.242	48.635	46.918	1.00	24.95
ATOM	5049	CD	PRO	A	655	55.787	49.731	46.087	1.00	22.29
ATOM	5050	N	VAL	A	656	51.397	48.633	44.966	1.00	24.08
ATOM	5051	CA	VAL	A	656	50.092	48.801	45.555	1.00	23.00
ATOM	5052	C	VAL	A	656	50.242	47.927	46.766	1.00	23.22
ATOM	5053	O	VAL	A	656	50.901	46.907	46.654	1.00	23.66
ATOM	5054	CB	VAL	A	656	48.996	48.248	44.633	1.00	23.42
ATOM	5055	CG1	VAL	A	656	47.831	47.830	45.408	1.00	22.09
ATOM	5056	CG2	VAL	A	656	48.581	49.280	43.637	1.00	21.87
ATOM	5057	N	SER	A	657	49.708	48.314	47.928	1.00	22.68
ATOM	5058	CA	SER	A	657	49.749	47.460	49.139	1.00	22.65
ATOM	5059	C	SER	A	657	48.381	47.086	49.698	1.00	22.62
ATOM	5060	O	SER	A	657	48.314	46.142	50.476	1.00	24.25
ATOM	5061	CB	SER	A	657	50.497	48.154	50.306	1.00	22.94
ATOM	5062	OG	SER	A	657	49.785	49.330	50.750	1.00	21.12
ATOM	5063	N	ARG	A	658	47.322	47.821	49.328	1.00	22.76
ATOM	5064	CA	ARG	A	658	45.960	47.573	49.773	1.00	23.64
ATOM	5065	C	ARG	A	658	45.028	48.259	48.770	1.00	23.86
ATOM	5066	O	ARG	A	658	45.194	49.447	48.447	1.00	23.24
ATOM	5067	CB	ARG	A	658	45.789	48.118	51.197	1.00	24.97
ATOM	5068	CG	ARG	A	658	44.450	48.173	51.828	1.00	27.68
ATOM	5069	CD	ARG	A	658	44.608	48.584	53.292	1.00	32.89
ATOM	5070	NE	ARG	A	658	43.487	48.394	54.210	1.00	39.23
ATOM	5071	CZ	ARG	A	658	42.515	49.260	54.412	1.00	40.71
ATOM	5072	NH1	ARG	A	658	42.437	50.367	53.692	1.00	42.58
ATOM	5073	NH2	ARG	A	658	41.585	48.998	55.307	1.00	40.26
ATOM	5074	N	TRP	A	659	44.032	47.502	48.300	1.00	22.99
ATOM	5075	CA	TRP	A	659	43.247	47.925	47.165	1.00	22.51
ATOM	5076	C	TRP	A	659	42.364	49.102	47.479	1.00	22.51
ATOM	5077	O	TRP	A	659	42.112	49.894	46.602	1.00	21.24
ATOM	5078	CB	TRP	A	659	42.505	46.741	46.563	1.00	22.25
ATOM	5079	CG	TRP	A	659	43.443	45.839	45.961	1.00	21.75
ATOM	5080	CD1	TRP	A	659	43.805	44.591	46.380	1.00	21.07
ATOM	5081	CD2	TRP	A	659	44.200	46.103	44.790	1.00	19.12
ATOM	5082	NE1	TRP	A	659	44.761	44.068	45.530	1.00	20.37
ATOM	5083	CE2	TRP	A	659	45.031	44.991	44.560	1.00	20.52
ATOM	5084	CE3	TRP	A	659	44.288	47.190	43.930	1.00	20.26
ATOM	5085	CZ2	TRP	A	659	45.900	44.922	43.474	1.00	21.88
ATOM	5086	CZ3	TRP	A	659	45.162	47.129	42.866	1.00	21.87
ATOM	5087	CH2	TRP	A	659	45.936	45.993	42.640	1.00	21.25
ATOM	5088	N	GLU	A	660	41.981	49.279	48.738	1.00	23.00
ATOM	5089	CA	GLU	A	660	41.224	50.461	49.126	1.00	22.39
ATOM	5090	C	GLU	A	660	42.084	51.714	48.900	1.00	23.18
ATOM	5091	O	GLU	A	660	41.554	52.827	48.778	1.00	23.78
ATOM	5092	CB	GLU	A	660	40.676	50.387	50.588	1.00	24.05
ATOM	5093	CG	GLU	A	660	39.392	49.556	50.770	1.00	26.09
ATOM	5094	CD	GLU	A	660	39.262	48.942	52.189	1.00	30.94
ATOM	5095	OE1	GLU	A	660	39.852	47.858	52.484	1.00	29.34
ATOM	5096	OE2	GLU	A	660	38.555	49.524	53.046	1.00	35.02

ATOM	5097	N	TYR	A	661	43.395	51.579	48.777	1.00 22.69
ATOM	5098	CA	TYR	A	661	44.173	52.761	48.476	1.00 22.95
ATOM	5099	C	TYR	A	661	44.228	53.126	46.967	1.00 22.89
ATOM	5100	O	TYR	A	661	44.621	54.239	46.651	1.00 21.39
ATOM	5101	CB	TYR	A	661	45.611	52.589	48.930	1.00 22.98
ATOM	5102	CG	TYR	A	661	45.819	52.433	50.422	1.00 23.13
ATOM	5103	CD1	TYR	A	661	44.956	53.014	51.351	1.00 24.47
ATOM	5104	CD2	TYR	A	661	46.887	51.717	50.905	1.00 21.26
ATOM	5105	CE1	TYR	A	661	45.166	52.840	52.693	1.00 24.70
ATOM	5106	CE2	TYR	A	661	47.100	51.566	52.259	1.00 20.68
ATOM	5107	CZ	TYR	A	661	46.248	52.117	53.144	1.00 22.08
ATOM	5108	OH	TYR	A	661	46.446	51.935	54.523	1.00 21.51
ATOM	5109	N	TYR	A	662	43.906	52.192	46.063	1.00 21.57
ATOM	5110	CA	TYR	A	662	44.091	52.436	44.647	1.00 21.52
ATOM	5111	C	TYR	A	662	42.828	53.020	43.979	1.00 22.38
ATOM	5112	O	TYR	A	662	41.761	53.079	44.599	1.00 22.23
ATOM	5113	CB	TYR	A	662	44.657	51.187	43.933	1.00 22.04
ATOM	5114	CG	TYR	A	662	45.273	51.547	42.627	1.00 21.82
ATOM	5115	CD1	TYR	A	662	46.229	52.581	42.568	1.00 22.72
ATOM	5116	CD2	TYR	A	662	44.853	50.960	41.439	1.00 21.25
ATOM	5117	CE1	TYR	A	662	46.760	52.983	41.386	1.00 21.34
ATOM	5118	CE2	TYR	A	662	45.427	51.326	40.236	1.00 25.30
ATOM	5119	CZ	TYR	A	662	46.370	52.345	40.214	1.00 23.50
ATOM	5120	OH	TYR	A	662	46.898	52.771	39.048	1.00 20.23
ATOM	5121	N	ASP	A	663	42.922	53.492	42.736	1.00 22.24
ATOM	5122	CA	ASP	A	663	41.808	54.237	42.199	1.00 22.59
ATOM	5123	C	ASP	A	663	40.605	53.355	41.901	1.00 23.66
ATOM	5124	O	ASP	A	663	40.719	52.120	41.715	1.00 23.06
ATOM	5125	CB	ASP	A	663	42.203	55.065	40.984	1.00 23.04
ATOM	5126	CG	ASP	A	663	42.439	54.223	39.732	1.00 24.88
ATOM	5127	OD1	ASP	A	663	41.517	53.513	39.230	1.00 26.15
ATOM	5128	OD2	ASP	A	663	43.539	54.229	39.179	1.00 25.50
ATOM	5129	N	SER	A	664	39.454	54.015	41.894	1.00 23.69
ATOM	5130	CA	SER	A	664	38.199	53.343	41.685	1.00 24.34
ATOM	5131	C	SER	A	664	38.080	52.588	40.375	1.00 23.92
ATOM	5132	O	SER	A	664	37.619	51.473	40.397	1.00 23.78
ATOM	5133	CB	SER	A	664	37.065	54.334	41.743	1.00 24.41
ATOM	5134	OG	SER	A	664	37.255	55.329	40.782	1.00 24.35
ATOM	5135	N	VAL	A	665	38.446	53.195	39.253	1.00 23.95
ATOM	5136	CA	VAL	A	665	38.176	52.557	37.959	1.00 24.43
ATOM	5137	C	VAL	A	665	38.901	51.223	37.779	1.00 24.19
ATOM	5138	O	VAL	A	665	38.343	50.255	37.338	1.00 25.04
ATOM	5139	CB	VAL	A	665	38.510	53.485	36.775	1.00 25.20
ATOM	5140	CG1	VAL	A	665	38.307	52.741	35.374	1.00 23.28
ATOM	5141	CG2	VAL	A	665	37.629	54.748	36.854	1.00 26.35
ATOM	5142	N	TYR	A	666	40.155	51.172	38.130	1.00 23.72
ATOM	5143	CA	TYR	A	666	40.910	49.952	37.933	1.00 24.29
ATOM	5144	C	TYR	A	666	40.585	48.956	38.982	1.00 23.81
ATOM	5145	O	TYR	A	666	40.384	47.791	38.677	1.00 22.28
ATOM	5146	CB	TYR	A	666	42.382	50.267	38.030	1.00 24.47
ATOM	5147	CG	TYR	A	666	43.301	49.105	37.900	1.00 25.39
ATOM	5148	CD1	TYR	A	666	43.624	48.336	38.997	1.00 27.84
ATOM	5149	CD2	TYR	A	666	43.861	48.776	36.670	1.00 25.64
ATOM	5150	CE1	TYR	A	666	44.493	47.296	38.891	1.00 26.70
ATOM	5151	CE2	TYR	A	666	44.715	47.730	36.545	1.00 25.37
ATOM	5152	CZ	TYR	A	666	45.055	47.009	37.667	1.00 25.40
ATOM	5153	OH	TYR	A	666	45.894	45.942	37.574	1.00 24.41
ATOM	5154	N	THR	A	667	40.531	49.419	40.234	1.00 24.01
ATOM	5155	CA	THR	A	667	40.355	48.504	41.354	1.00 24.46
ATOM	5156	C	THR	A	667	38.998	47.836	41.314	1.00 25.21
ATOM	5157	O	THR	A	667	38.896	46.605	41.452	1.00 26.15
ATOM	5158	CB	THR	A	667	40.529	49.220	42.736	1.00 24.60
ATOM	5159	OG1	THR	A	667	41.790	49.890	42.820	1.00 24.03
ATOM	5160	CG2	THR	A	667	40.590	48.214	43.886	1.00 24.98
ATOM	5161	N	GLU	A	668	37.949	48.627	41.147	1.00 25.25
ATOM	5162	CA	GLU	A	668	36.603	48.073	41.246	1.00 25.97
ATOM	5163	C	GLU	A	668	36.276	47.103	40.084	1.00 26.85
ATOM	5164	O	GLU	A	668	35.475	46.201	40.206	1.00 26.02
ATOM	5165	CB	GLU	A	668	35.569	49.207	41.358	1.00 26.00
ATOM	5166	CG	GLU	A	668	35.673	49.996	42.671	1.00 25.76

ATOM	5167	CD	GLU	A	668	34.948	51.309	42.602	1.00	26.41
ATOM	5168	OE1	GLU	A	668	34.045	51.443	41.722	1.00	28.15
ATOM	5169	OE2	GLU	A	668	35.267	52.208	43.394	1.00	25.22
ATOM	5170	N	ARG	A	669	36.964	47.271	38.974	1.00	28.90
ATOM	5171	CA	ARG	A	669	36.802	46.366	37.844	1.00	30.04
ATOM	5172	C	ARG	A	669	37.070	44.946	38.254	1.00	29.89
ATOM	5173	O	ARG	A	669	36.313	44.034	37.940	1.00	28.41
ATOM	5174	CB	ARG	A	669	37.853	46.695	36.804	1.00	30.81
ATOM	5175	CG	ARG	A	669	37.285	46.953	35.499	1.00	34.76
ATOM	5176	CD	ARG	A	669	37.998	46.346	34.354	1.00	36.11
ATOM	5177	NE	ARG	A	669	39.380	46.723	34.302	1.00	38.37
ATOM	5178	CZ	ARG	A	669	39.849	47.943	34.131	1.00	38.35
ATOM	5179	NH1	ARG	A	669	39.055	48.979	33.944	1.00	38.09
ATOM	5180	NH2	ARG	A	669	41.158	48.098	34.108	1.00	35.77
ATOM	5181	N	TYR	A	670	38.201	44.770	38.934	1.00	29.76
ATOM	5182	CA	TYR	A	670	38.610	43.454	39.384	1.00	30.01
ATOM	5183	C	TYR	A	670	38.159	43.119	40.763	1.00	30.26
ATOM	5184	O	TYR	A	670	38.173	41.967	41.132	1.00	31.10
ATOM	5185	CB	TYR	A	670	40.132	43.310	39.314	1.00	29.59
ATOM	5186	CG	TYR	A	670	40.664	43.860	38.056	1.00	28.51
ATOM	5187	CD1	TYR	A	670	40.384	43.242	36.826	1.00	30.93
ATOM	5188	CD2	TYR	A	670	41.395	45.027	38.059	1.00	29.14
ATOM	5189	CE1	TYR	A	670	40.856	43.778	35.628	1.00	28.01
ATOM	5190	CE2	TYR	A	670	41.866	45.567	36.899	1.00	27.43
ATOM	5191	CZ	TYR	A	670	41.615	44.927	35.704	1.00	26.81
ATOM	5192	OH	TYR	A	670	42.038	45.491	34.588	1.00	30.30
ATOM	5193	N	MET	A	671	37.804	44.098	41.576	1.00	31.12
ATOM	5194	CA	MET	A	671	37.517	43.742	42.969	1.00	31.05
ATOM	5195	C	MET	A	671	36.100	44.043	43.486	1.00	31.36
ATOM	5196	O	MET	A	671	35.796	43.702	44.622	1.00	30.25
ATOM	5197	CB	MET	A	671	38.548	44.379	43.891	1.00	30.81
ATOM	5198	CG	MET	A	671	39.887	43.733	43.851	1.00	30.32
ATOM	5199	SD	MET	A	671	39.933	42.170	44.727	1.00	30.89
ATOM	5200	CE	MET	A	671	39.988	42.879	46.392	1.00	28.68
ATOM	5201	N	GLY	A	672	35.236	44.629	42.654	1.00	31.62
ATOM	5202	CA	GLY	A	672	33.922	45.029	43.126	1.00	32.28
ATOM	5203	C	GLY	A	672	34.067	46.167	44.121	1.00	33.48
ATOM	5204	O	GLY	A	672	35.074	46.868	44.117	1.00	34.40
ATOM	5205	N	LEU	A	673	33.075	46.383	44.970	1.00	33.67
ATOM	5206	CA	LEU	A	673	33.175	47.451	45.946	1.00	33.93
ATOM	5207	C	LEU	A	673	33.612	46.919	47.304	1.00	33.21
ATOM	5208	O	LEU	A	673	33.271	45.802	47.667	1.00	32.81
ATOM	5209	CB	LEU	A	673	31.835	48.152	46.103	1.00	34.34
ATOM	5210	CG	LEU	A	673	31.341	49.002	44.958	1.00	35.92
ATOM	5211	CD1	LEU	A	673	29.903	49.435	45.261	1.00	38.82
ATOM	5212	CD2	LEU	A	673	32.206	50.208	44.786	1.00	36.78
ATOM	5213	N	PRO	A	674	34.346	47.724	48.065	1.00	32.97
ATOM	5214	CA	PRO	A	674	34.777	47.323	49.399	1.00	33.06
ATOM	5215	C	PRO	A	674	33.721	47.625	50.497	1.00	33.83
ATOM	5216	O	PRO	A	674	33.996	48.429	51.402	1.00	32.53
ATOM	5217	CB	PRO	A	674	36.009	48.189	49.613	1.00	32.38
ATOM	5218	CG	PRO	A	674	35.621	49.475	49.044	1.00	32.34
ATOM	5219	CD	PRO	A	674	34.826	49.083	47.758	1.00	33.10
ATOM	5220	N	THR	A	675	32.550	46.997	50.395	1.00	34.72
ATOM	5221	CA	THR	A	675	31.519	47.046	51.443	1.00	36.32
ATOM	5222	C	THR	A	675	31.185	45.643	51.936	1.00	36.59
ATOM	5223	O	THR	A	675	31.431	44.661	51.258	1.00	36.02
ATOM	5224	CB	THR	A	675	30.208	47.605	50.910	1.00	36.75
ATOM	5225	OG1	THR	A	675	29.806	46.817	49.771	1.00	38.87
ATOM	5226	CG2	THR	A	675	30.385	49.028	50.381	1.00	36.51
ATOM	5227	N	PRO	A	676	30.584	45.552	53.112	1.00	37.32
ATOM	5228	CA	PRO	A	676	30.165	44.259	53.656	1.00	37.98
ATOM	5229	C	PRO	A	676	29.234	43.465	52.740	1.00	38.00
ATOM	5230	O	PRO	A	676	29.293	42.251	52.743	1.00	37.37
ATOM	5231	CB	PRO	A	676	29.451	44.655	54.952	1.00	38.17
ATOM	5232	CG	PRO	A	676	30.102	45.890	55.347	1.00	38.18
ATOM	5233	CD	PRO	A	676	30.301	46.645	54.053	1.00	37.59
ATOM	5234	N	GLU	A	677	28.429	44.144	51.939	1.00	39.07
ATOM	5235	CA	GLU	A	677	27.490	43.463	51.060	1.00	40.38
ATOM	5236	C	GLU	A	677	28.139	42.998	49.751	1.00	39.46

ATOM	5237	O	GLU	A	677	27.626	42.096	49.104	1.00	39.65
ATOM	5238	CB	GLU	A	677	26.261	44.358	50.807	1.00	41.65
ATOM	5239	CG	GLU	A	677	26.229	45.053	49.454	1.00	45.83
ATOM	5240	CD	GLU	A	677	25.316	46.285	49.437	1.00	52.13
ATOM	5241	OE1	GLU	A	677	25.569	47.207	50.256	1.00	55.30
ATOM	5242	OE2	GLU	A	677	24.365	46.341	48.596	1.00	53.85
ATOM	5243	N	ASP	A	678	29.275	43.591	49.366	1.00	38.46
ATOM	5244	CA	ASP	A	678	29.949	43.202	48.124	1.00	36.21
ATOM	5245	C	ASP	A	678	31.289	42.493	48.385	1.00	35.24
ATOM	5246	O	ASP	A	678	31.277	41.314	48.622	1.00	34.64
ATOM	5247	CB	ASP	A	678	30.068	44.384	47.168	1.00	36.35
ATOM	5248	CG	ASP	A	678	30.594	43.979	45.787	1.00	37.08
ATOM	5249	OD1	ASP	A	678	30.891	42.770	45.598	1.00	36.62
ATOM	5250	OD2	ASP	A	678	30.739	44.794	44.834	1.00	36.77
ATOM	5251	N	ASN	A	679	32.445	43.156	48.378	1.00	33.79
ATOM	5252	CA	ASN	A	679	33.701	42.366	48.454	1.00	32.51
ATOM	5253	C	ASN	A	679	34.670	42.785	49.562	1.00	31.96
ATOM	5254	O	ASN	A	679	35.856	42.512	49.463	1.00	29.64
ATOM	5255	CB	ASN	A	679	34.399	42.395	47.080	1.00	32.28
ATOM	5256	CG	ASN	A	679	35.400	41.251	46.849	1.00	29.98
ATOM	5257	OD1	ASN	A	679	36.394	41.448	46.157	1.00	34.09
ATOM	5258	ND2	ASN	A	679	35.141	40.077	47.383	1.00	26.34
ATOM	5259	N	LEU	A	680	34.163	43.385	50.649	1.00	32.19
ATOM	5260	CA	LEU	A	680	35.048	43.880	51.735	1.00	33.13
ATOM	5261	C	LEU	A	680	36.015	42.836	52.286	1.00	32.66
ATOM	5262	O	LEU	A	680	37.218	43.120	52.454	1.00	32.25
ATOM	5263	CB	LEU	A	680	34.253	44.508	52.882	1.00	33.62
ATOM	5264	CG	LEU	A	680	35.024	45.198	54.019	1.00	36.92
ATOM	5265	CD1	LEU	A	680	35.911	46.349	53.515	1.00	37.94
ATOM	5266	CD2	LEU	A	680	34.020	45.718	55.110	1.00	36.39
ATOM	5267	N	ASP	A	681	35.513	41.633	52.553	1.00	31.71
ATOM	5268	CA	ASP	A	681	36.356	40.598	53.099	1.00	32.46
ATOM	5269	C	ASP	A	681	37.599	40.402	52.251	1.00	31.68
ATOM	5270	O	ASP	A	681	38.688	40.384	52.786	1.00	31.47
ATOM	5271	CB	ASP	A	681	35.631	39.250	53.241	1.00	33.28
ATOM	5272	CG	ASP	A	681	34.621	39.226	54.411	1.00	37.99
ATOM	5273	OD1	ASP	A	681	34.514	40.224	55.155	1.00	37.92
ATOM	5274	OD2	ASP	A	681	33.899	38.220	54.659	1.00	41.78
ATOM	5275	N	HIS	A	682	37.461	40.231	50.945	1.00	30.30
ATOM	5276	CA	HIS	A	682	38.663	40.020	50.182	1.00	30.43
ATOM	5277	C	HIS	A	682	39.565	41.263	50.055	1.00	28.84
ATOM	5278	O	HIS	A	682	40.752	41.128	49.917	1.00	28.95
ATOM	5279	CB	HIS	A	682	38.419	39.434	48.816	1.00	30.48
ATOM	5280	CG	HIS	A	682	39.704	39.091	48.132	1.00	33.22
ATOM	5281	ND1	HIS	A	682	40.619	38.219	48.684	1.00	35.26
ATOM	5282	CD2	HIS	A	682	40.277	39.570	47.004	1.00	30.92
ATOM	5283	CE1	HIS	A	682	41.672	38.128	47.897	1.00	31.98
ATOM	5284	NE2	HIS	A	682	41.496	38.950	46.880	1.00	32.30
ATOM	5285	N	TYR	A	683	39.012	42.456	50.053	1.00	27.68
ATOM	5286	CA	TYR	A	683	39.834	43.649	50.072	1.00	27.60
ATOM	5287	C	TYR	A	683	40.704	43.634	51.355	1.00	27.75
ATOM	5288	O	TYR	A	683	41.834	44.118	51.367	1.00	25.84
ATOM	5289	CB	TYR	A	683	38.963	44.884	50.146	1.00	26.87
ATOM	5290	CG	TYR	A	683	38.554	45.591	48.850	1.00	29.98
ATOM	5291	CD1	TYR	A	683	37.402	45.230	48.157	1.00	29.80
ATOM	5292	CD2	TYR	A	683	39.283	46.691	48.382	1.00	27.64
ATOM	5293	CE1	TYR	A	683	37.000	45.939	47.005	1.00	29.62
ATOM	5294	CE2	TYR	A	683	38.900	47.373	47.278	1.00	29.75
ATOM	5295	CZ	TYR	A	683	37.744	47.000	46.587	1.00	29.38
ATOM	5296	OH	TYR	A	683	37.389	47.704	45.476	1.00	29.36
ATOM	5297	N	ARG	A	684	40.179	43.056	52.433	1.00	28.35
ATOM	5298	CA	ARG	A	684	40.851	43.174	53.724	1.00	29.33
ATOM	5299	C	ARG	A	684	41.889	42.102	53.953	1.00	29.28
ATOM	5300	O	ARG	A	684	42.902	42.380	54.574	1.00	27.35
ATOM	5301	CB	ARG	A	684	39.836	43.261	54.878	1.00	30.81
ATOM	5302	CG	ARG	A	684	39.623	44.659	55.354	1.00	33.87
ATOM	5303	CD	ARG	A	684	38.403	45.271	54.873	1.00	40.64
ATOM	5304	NE	ARG	A	684	38.428	46.748	54.722	1.00	45.03
ATOM	5305	CZ	ARG	A	684	38.149	47.623	55.676	1.00	44.59
ATOM	5306	NH1	ARG	A	684	37.901	47.192	56.899	1.00	43.82

ATOM	5307	NH2	ARG	A	684	38.112	48.927	55.393	1.00 44.58
ATOM	5308	N	ASN	A	685	41.700	40.948	53.305	1.00 29.40
ATOM	5309	CA	ASN	A	685	42.583	39.789	53.409	1.00 30.04
ATOM	5310	C	ASN	A	685	43.697	39.793	52.302	1.00 28.72
ATOM	5311	O	ASN	A	685	44.542	38.891	52.255	1.00 27.85
ATOM	5312	CB	ASN	A	685	41.724	38.491	53.340	1.00 32.20
ATOM	5313	CG	ASN	A	685	42.546	37.197	53.590	1.00 37.53
ATOM	5314	OD1	ASN	A	685	43.730	37.264	53.925	1.00 45.27
ATOM	5315	ND2	ASN	A	685	41.915	36.019	53.407	1.00 41.53
ATOM	5316	N	SER	A	686	43.723	40.825	51.456	1.00 26.15
ATOM	5317	CA	SER	A	686	44.703	40.884	50.362	1.00 25.93
ATOM	5318	C	SER	A	686	45.704	42.047	50.444	1.00 25.52
ATOM	5319	O	SER	A	686	46.200	42.520	49.442	1.00 25.36
ATOM	5320	CB	SER	A	686	43.988	40.878	49.007	1.00 24.81
ATOM	5321	OG	SER	A	686	43.164	42.012	48.829	1.00 23.66
ATOM	5322	N	THR	A	687	45.990	42.490	51.657	1.00 25.47
ATOM	5323	CA	THR	A	687	46.950	43.544	51.883	1.00 25.57
ATOM	5324	C	THR	A	687	48.323	42.961	52.129	1.00 24.54
ATOM	5325	O	THR	A	687	48.480	41.863	52.564	1.00 23.94
ATOM	5326	CB	THR	A	687	46.613	44.331	53.133	1.00 25.76
ATOM	5327	OG1	THR	A	687	46.899	43.506	54.242	1.00 26.17
ATOM	5328	CG2	THR	A	687	45.126	44.648	53.256	1.00 26.56
ATOM	5329	N	VAL	A	688	49.326	43.733	51.816	1.00 25.38
ATOM	5330	CA	VAL	A	688	50.688	43.335	52.102	1.00 25.28
ATOM	5331	C	VAL	A	688	50.865	43.423	53.615	1.00 24.05
ATOM	5332	O	VAL	A	688	51.516	42.599	54.224	1.00 22.44
ATOM	5333	CB	VAL	A	688	51.666	44.269	51.410	1.00 24.90
ATOM	5334	CG1	VAL	A	688	53.097	43.949	51.842	1.00 27.31
ATOM	5335	CG2	VAL	A	688	51.516	44.139	49.937	1.00 23.55
ATOM	5336	N	MET	A	689	50.222	44.395	54.229	1.00 24.40
ATOM	5337	CA	MET	A	689	50.450	44.604	55.655	1.00 25.35
ATOM	5338	C	MET	A	689	50.133	43.358	56.484	1.00 26.76
ATOM	5339	O	MET	A	689	50.857	43.071	57.409	1.00 26.90
ATOM	5340	CB	MET	A	689	49.669	45.805	56.167	1.00 25.18
ATOM	5341	CG	MET	A	689	50.343	47.157	55.795	1.00 25.17
ATOM	5342	SD	MET	A	689	50.258	47.541	53.985	1.00 26.00
ATOM	5343	CE	MET	A	689	48.576	48.033	53.891	1.00 25.22
ATOM	5344	N	SER	A	690	49.120	42.576	56.120	1.00 27.17
ATOM	5345	CA	SER	A	690	48.743	41.471	56.984	1.00 28.78
ATOM	5346	C	SER	A	690	49.790	40.354	57.003	1.00 28.89
ATOM	5347	O	SER	A	690	49.779	39.481	57.886	1.00 29.60
ATOM	5348	CB	SER	A	690	47.353	40.926	56.599	1.00 28.81
ATOM	5349	OG	SER	A	690	47.324	40.487	55.227	1.00 31.54
ATOM	5350	N	ARG	A	691	50.703	40.381	56.044	1.00 27.47
ATOM	5351	CA	ARG	A	691	51.711	39.372	55.986	1.00 27.51
ATOM	5352	C	ARG	A	691	53.045	39.801	56.611	1.00 27.64
ATOM	5353	O	ARG	A	691	54.049	39.092	56.442	1.00 27.10
ATOM	5354	CB	ARG	A	691	51.876	38.942	54.528	1.00 27.22
ATOM	5355	CG	ARG	A	691	50.571	38.318	53.933	1.00 26.70
ATOM	5356	CD	ARG	A	691	50.652	38.025	52.482	1.00 29.46
ATOM	5357	NE	ARG	A	691	49.423	37.469	51.911	1.00 31.01
ATOM	5358	CZ	ARG	A	691	49.439	36.635	50.876	1.00 31.66
ATOM	5359	NH1	ARG	A	691	50.605	36.305	50.332	1.00 28.29
ATOM	5360	NH2	ARG	A	691	48.309	36.112	50.400	1.00 32.39
ATOM	5361	N	ALA	A	692	53.046	40.923	57.328	1.00 27.06
ATOM	5362	CA	ALA	A	692	54.290	41.505	57.849	1.00 29.54
ATOM	5363	C	ALA	A	692	55.258	40.552	58.496	1.00 29.91
ATOM	5364	O	ALA	A	692	56.439	40.580	58.189	1.00 29.93
ATOM	5365	CB	ALA	A	692	53.987	42.625	58.856	1.00 30.04
ATOM	5366	N	GLU	A	693	54.748	39.748	59.420	1.00 31.37
ATOM	5367	CA	GLU	A	693	55.545	38.818	60.203	1.00 32.71
ATOM	5368	C	GLU	A	693	56.389	37.910	59.353	1.00 32.63
ATOM	5369	O	GLU	A	693	57.492	37.544	59.748	1.00 31.76
ATOM	5370	CB	GLU	A	693	54.639	37.898	61.025	1.00 33.70
ATOM	5371	CG	GLU	A	693	53.837	38.575	62.118	1.00 39.27
ATOM	5372	CD	GLU	A	693	54.597	38.701	63.439	1.00 44.49
ATOM	5373	OE1	GLU	A	693	55.795	38.292	63.502	1.00 42.20
ATOM	5374	OE2	GLU	A	693	53.968	39.212	64.412	1.00 46.31
ATOM	5375	N	ASN	A	694	55.836	37.514	58.210	1.00 32.72
ATOM	5376	CA	ASN	A	694	56.511	36.606	57.307	1.00 33.40

ATOM	5377	C	ASN	A	694	57.767	37.238	56.690	1.00	33.58
ATOM	5378	O	ASN	A	694	58.667	36.534	56.298	1.00	34.60
ATOM	5379	CB	ASN	A	694	55.521	36.125	56.211	1.00	33.62
ATOM	5380	CG	ASN	A	694	54.414	35.164	56.759	1.00	35.53
ATOM	5381	OD1	ASN	A	694	54.608	34.474	57.741	1.00	40.35
ATOM	5382	ND2	ASN	A	694	53.290	35.094	56.071	1.00	40.72
ATOM	5383	N	PHE	A	695	57.859	38.564	56.617	1.00	32.63
ATOM	5384	CA	PHE	A	695	59.011	39.160	55.992	1.00	32.04
ATOM	5385	C	PHE	A	695	60.322	38.897	56.779	1.00	32.80
ATOM	5386	O	PHE	A	695	61.408	39.201	56.341	1.00	31.80
ATOM	5387	CB	PHE	A	695	58.794	40.658	55.773	1.00	31.84
ATOM	5388	CG	PHE	A	695	57.918	40.999	54.580	1.00	30.01
ATOM	5389	CD1	PHE	A	695	56.550	40.781	54.612	1.00	28.42
ATOM	5390	CD2	PHE	A	695	58.471	41.591	53.464	1.00	32.11
ATOM	5391	CE1	PHE	A	695	55.755	41.092	53.564	1.00	27.96
ATOM	5392	CE2	PHE	A	695	57.691	41.914	52.373	1.00	33.00
ATOM	5393	CZ	PHE	A	695	56.320	41.688	52.424	1.00	30.28
ATOM	5394	N	LYS	A	696	60.233	38.283	57.933	1.00	34.34
ATOM	5395	CA	LYS	A	696	61.440	38.049	58.709	1.00	35.39
ATOM	5396	C	LYS	A	696	62.275	36.945	58.093	1.00	35.11
ATOM	5397	O	LYS	A	696	63.409	36.718	58.478	1.00	35.26
ATOM	5398	CB	LYS	A	696	61.053	37.670	60.127	1.00	36.41
ATOM	5399	CG	LYS	A	696	60.241	36.403	60.206	1.00	39.12
ATOM	5400	CD	LYS	A	696	59.597	36.216	61.622	1.00	44.25
ATOM	5401	CE	LYS	A	696	58.616	35.023	61.628	1.00	45.71
ATOM	5402	NZ	LYS	A	696	57.871	34.854	62.947	1.00	47.23
ATOM	5403	N	GLN	A	697	61.708	36.254	57.125	1.00	34.71
ATOM	5404	CA	GLN	A	697	62.380	35.138	56.499	1.00	35.52
ATOM	5405	C	GLN	A	697	63.187	35.522	55.295	1.00	34.21
ATOM	5406	O	GLN	A	697	63.848	34.677	54.731	1.00	35.13
ATOM	5407	CB	GLN	A	697	61.331	34.121	56.029	1.00	36.66
ATOM	5408	CG	GLN	A	697	60.840	33.188	57.117	1.00	40.42
ATOM	5409	CD	GLN	A	697	59.659	32.367	56.642	1.00	44.24
ATOM	5410	OE1	GLN	A	697	59.817	31.445	55.803	1.00	48.10
ATOM	5411	NE2	GLN	A	697	58.483	32.693	57.148	1.00	41.55
ATOM	5412	N	VAL	A	698	63.112	36.782	54.894	1.00	32.68
ATOM	5413	CA	VAL	A	698	63.728	37.230	53.655	1.00	31.46
ATOM	5414	C	VAL	A	698	64.325	38.649	53.776	1.00	30.29
ATOM	5415	O	VAL	A	698	64.119	39.323	54.753	1.00	29.83
ATOM	5416	CB	VAL	A	698	62.672	37.317	52.570	1.00	31.46
ATOM	5417	CG1	VAL	A	698	61.821	36.048	52.487	1.00	28.93
ATOM	5418	CG2	VAL	A	698	61.765	38.557	52.831	1.00	30.70
ATOM	5419	N	GLU	A	699	65.062	39.057	52.767	1.00	28.97
ATOM	5420	CA	GLU	A	699	65.604	40.415	52.648	1.00	29.28
ATOM	5421	C	GLU	A	699	64.813	41.169	51.591	1.00	27.24
ATOM	5422	O	GLU	A	699	64.712	40.710	50.445	1.00	27.18
ATOM	5423	CB	GLU	A	699	67.052	40.349	52.234	1.00	29.36
ATOM	5424	CG	GLU	A	699	67.823	39.373	53.122	1.00	33.38
ATOM	5425	CD	GLU	A	699	69.169	39.010	52.541	1.00	40.83
ATOM	5426	OE1	GLU	A	699	69.909	39.934	52.077	1.00	42.56
ATOM	5427	OE2	GLU	A	699	69.462	37.785	52.524	1.00	46.50
ATOM	5428	N	TYR	A	700	64.288	42.321	51.965	1.00	25.29
ATOM	5429	CA	TYR	A	700	63.348	43.087	51.117	1.00	24.48
ATOM	5430	C	TYR	A	700	63.823	44.489	50.917	1.00	23.48
ATOM	5431	O	TYR	A	700	64.304	45.101	51.843	1.00	21.89
ATOM	5432	CB	TYR	A	700	62.045	43.186	51.903	1.00	24.85
ATOM	5433	CG	TYR	A	700	60.811	43.889	51.344	1.00	24.00
ATOM	5434	CD1	TYR	A	700	60.348	43.655	50.069	1.00	24.47
ATOM	5435	CD2	TYR	A	700	60.002	44.629	52.201	1.00	24.32
ATOM	5436	CE1	TYR	A	700	59.153	44.248	49.606	1.00	25.02
ATOM	5437	CE2	TYR	A	700	58.818	45.204	51.767	1.00	26.02
ATOM	5438	CZ	TYR	A	700	58.383	45.004	50.467	1.00	25.69
ATOM	5439	OH	TYR	A	700	57.190	45.585	50.088	1.00	22.93
ATOM	5440	N	LEU	A	701	63.647	45.017	49.725	1.00	22.74
ATOM	5441	CA	LEU	A	701	63.969	46.408	49.458	1.00	22.82
ATOM	5442	C	LEU	A	701	62.708	47.006	48.890	1.00	23.35
ATOM	5443	O	LEU	A	701	62.166	46.520	47.892	1.00	23.55
ATOM	5444	CB	LEU	A	701	65.118	46.490	48.462	1.00	22.91
ATOM	5445	CG	LEU	A	701	65.497	47.829	47.856	1.00	22.89
ATOM	5446	CD1	LEU	A	701	65.913	48.884	48.907	1.00	24.19

ATOM	5447	CD2	LEU	A	701	66.608	47.557	46.920	1.00 22.79
ATOM	5448	N	LEU	A	702	62.251	48.073	49.531	1.00 23.76
ATOM	5449	CA	LEU	A	702	61.010	48.759	49.184	1.00 22.51
ATOM	5450	C	LEU	A	702	61.392	50.145	48.715	1.00 21.85
ATOM	5451	O	LEU	A	702	62.171	50.862	49.382	1.00 19.94
ATOM	5452	CB	LEU	A	702	60.135	48.847	50.464	1.00 23.03
ATOM	5453	CG	LEU	A	702	58.799	49.601	50.342	1.00 21.66
ATOM	5454	CD1	LEU	A	702	57.813	48.855	49.423	1.00 21.68
ATOM	5455	CD2	LEU	A	702	58.164	49.820	51.680	1.00 22.17
ATOM	5456	N	ILE	A	703	60.866	50.535	47.561	1.00 20.85
ATOM	5457	CA	ILE	A	703	61.237	51.802	46.963	1.00 20.96
ATOM	5458	C	ILE	A	703	59.977	52.489	46.456	1.00 21.27
ATOM	5459	O	ILE	A	703	59.062	51.822	45.904	1.00 21.42
ATOM	5460	CB	ILE	A	703	62.205	51.531	45.764	1.00 21.36
ATOM	5461	CG1	ILE	A	703	63.374	50.669	46.183	1.00 20.77
ATOM	5462	CG2	ILE	A	703	62.658	52.797	45.136	1.00 21.33
ATOM	5463	CD1	ILE	A	703	64.345	50.290	45.094	1.00 22.08
ATOM	5464	N	HIS	A	704	59.918	53.802	46.592	1.00 20.79
ATOM	5465	CA	HIS	A	704	58.737	54.539	46.133	1.00 21.54
ATOM	5466	C	HIS	A	704	59.070	56.017	45.954	1.00 21.73
ATOM	5467	O	HIS	A	704	59.865	56.581	46.696	1.00 22.47
ATOM	5468	CB	HIS	A	704	57.620	54.357	47.174	1.00 21.36
ATOM	5469	CG	HIS	A	704	56.234	54.364	46.613	1.00 22.52
ATOM	5470	ND1	HIS	A	704	55.313	53.380	46.901	1.00 20.34
ATOM	5471	CD2	HIS	A	704	55.586	55.271	45.843	1.00 22.80
ATOM	5472	CE1	HIS	A	704	54.184	53.649	46.274	1.00 22.86
ATOM	5473	NE2	HIS	A	704	54.313	54.807	45.655	1.00 20.42
ATOM	5474	N	GLY	A	705	58.486	56.652	44.950	1.00 22.31
ATOM	5475	CA	GLY	A	705	58.654	58.077	44.775	1.00 21.36
ATOM	5476	C	GLY	A	705	57.634	58.815	45.596	1.00 21.59
ATOM	5477	O	GLY	A	705	56.461	58.390	45.698	1.00 21.44
ATOM	5478	N	THR	A	706	58.032	59.957	46.133	1.00 21.99
ATOM	5479	CA	THR	A	706	57.175	60.666	47.055	1.00 22.11
ATOM	5480	C	THR	A	706	56.129	61.449	46.345	1.00 22.60
ATOM	5481	O	THR	A	706	55.177	61.844	46.967	1.00 23.64
ATOM	5482	CB	THR	A	706	57.985	61.602	47.999	1.00 22.70
ATOM	5483	OG1	THR	A	706	58.616	62.657	47.267	1.00 21.83
ATOM	5484	CG2	THR	A	706	59.134	60.832	48.685	1.00 22.51
ATOM	5485	N	ALA	A	707	56.313	61.730	45.071	1.00 22.16
ATOM	5486	CA	ALA	A	707	55.277	62.453	44.344	1.00 23.18
ATOM	5487	C	ALA	A	707	54.522	61.557	43.388	1.00 22.84
ATOM	5488	O	ALA	A	707	54.086	62.027	42.317	1.00 22.90
ATOM	5489	CB	ALA	A	707	55.868	63.635	43.565	1.00 23.66
ATOM	5490	N	ASP	A	708	54.366	60.285	43.758	1.00 22.28
ATOM	5491	CA	ASP	A	708	53.624	59.337	42.932	1.00 23.26
ATOM	5492	C	ASP	A	708	52.100	59.638	43.031	1.00 23.76
ATOM	5493	O	ASP	A	708	51.484	59.426	44.041	1.00 22.55
ATOM	5494	CB	ASP	A	708	54.005	57.959	43.391	1.00 22.95
ATOM	5495	CG	ASP	A	708	53.609	56.843	42.417	1.00 23.76
ATOM	5496	OD1	ASP	A	708	52.633	57.029	41.678	1.00 22.38
ATOM	5497	OD2	ASP	A	708	54.176	55.707	42.429	1.00 18.33
ATOM	5498	N	ASP	A	709	51.510	60.161	41.953	1.00 24.61
ATOM	5499	CA	ASP	A	709	50.113	60.572	41.942	1.00 24.71
ATOM	5500	C	ASP	A	709	49.204	59.426	41.547	1.00 24.28
ATOM	5501	O	ASP	A	709	48.003	59.573	41.549	1.00 24.39
ATOM	5502	CB	ASP	A	709	49.914	61.650	40.890	1.00 25.52
ATOM	5503	CG	ASP	A	709	50.408	61.179	39.528	1.00 25.66
ATOM	5504	OD1	ASP	A	709	51.643	61.032	39.357	1.00 25.08
ATOM	5505	OD2	ASP	A	709	49.653	60.840	38.616	1.00 25.79
ATOM	5506	N	ASN	A	710	49.771	58.255	41.338	1.00 24.32
ATOM	5507	CA	ASN	A	710	49.010	57.125	40.826	1.00 24.34
ATOM	5508	C	ASN	A	710	48.946	56.073	41.930	1.00 23.77
ATOM	5509	O	ASN	A	710	47.907	55.862	42.499	1.00 22.19
ATOM	5510	CB	ASN	A	710	49.694	56.693	39.529	1.00 23.72
ATOM	5511	CG	ASN	A	710	49.111	55.457	38.877	1.00 25.68
ATOM	5512	OD1	ASN	A	710	49.565	55.108	37.760	1.00 28.26
ATOM	5513	ND2	ASN	A	710	48.155	54.793	39.503	1.00 20.50
ATOM	5514	N	VAL	A	711	50.057	55.420	42.238	1.00 23.96
ATOM	5515	CA	VAL	A	711	50.087	54.473	43.350	1.00 23.22
ATOM	5516	C	VAL	A	711	50.699	55.297	44.466	1.00 22.74

ATOM	5517	O	VAL	A	711	51.873	55.501	44.452	1.00 22.80
ATOM	5518	CB	VAL	A	711	50.972	53.283	43.047	1.00 22.97
ATOM	5519	CG1	VAL	A	711	51.160	52.431	44.299	1.00 23.01
ATOM	5520	CG2	VAL	A	711	50.368	52.450	41.924	1.00 23.83
ATOM	5521	N	HIS	A	712	49.904	55.814	45.400	1.00 22.89
ATOM	5522	CA	HIS	A	712	50.416	56.834	46.359	1.00 21.66
ATOM	5523	C	HIS	A	712	51.501	56.353	47.274	1.00 21.27
ATOM	5524	O	HIS	A	712	51.530	55.188	47.648	1.00 21.83
ATOM	5525	CB	HIS	A	712	49.277	57.418	47.149	1.00 21.88
ATOM	5526	CG	HIS	A	712	48.215	57.987	46.295	1.00 21.78
ATOM	5527	ND1	HIS	A	712	46.879	57.853	46.585	1.00 23.44
ATOM	5528	CD2	HIS	A	712	48.288	58.645	45.111	1.00 24.89
ATOM	5529	CE1	HIS	A	712	46.172	58.414	45.617	1.00 26.25
ATOM	5530	NE2	HIS	A	712	47.002	58.900	44.710	1.00 23.73
ATOM	5531	N	PHE	A	713	52.434	57.241	47.602	1.00 21.76
ATOM	5532	CA	PHE	A	713	53.548	56.891	48.497	1.00 21.66
ATOM	5533	C	PHE	A	713	52.955	56.240	49.755	1.00 21.63
ATOM	5534	O	PHE	A	713	53.514	55.305	50.331	1.00 21.09
ATOM	5535	CB	PHE	A	713	54.376	58.127	48.822	1.00 21.67
ATOM	5536	CG	PHE	A	713	55.544	57.844	49.691	1.00 22.98
ATOM	5537	CD1	PHE	A	713	56.709	57.363	49.148	1.00 23.95
ATOM	5538	CD2	PHE	A	713	55.464	58.032	51.068	1.00 23.46
ATOM	5539	CE1	PHE	A	713	57.761	57.053	49.962	1.00 24.01
ATOM	5540	CE2	PHE	A	713	56.543	57.743	51.890	1.00 24.07
ATOM	5541	CZ	PHE	A	713	57.680	57.269	51.347	1.00 22.72
ATOM	5542	N	GLN	A	714	51.801	56.747	50.153	1.00 21.89
ATOM	5543	CA	GLN	A	714	50.999	56.145	51.221	1.00 21.58
ATOM	5544	C	GLN	A	714	51.062	54.650	51.275	1.00 21.88
ATOM	5545	O	GLN	A	714	51.122	54.049	52.353	1.00 21.77
ATOM	5546	CB	GLN	A	714	49.530	56.516	50.996	1.00 22.22
ATOM	5547	CG	GLN	A	714	48.521	55.708	51.846	1.00 22.39
ATOM	5548	CD	GLN	A	714	47.083	55.934	51.412	1.00 25.35
ATOM	5549	OE1	GLN	A	714	46.801	56.149	50.215	1.00 29.33
ATOM	5550	NE2	GLN	A	714	46.162	55.906	52.385	1.00 24.01
ATOM	5551	N	GLN	A	715	50.991	54.021	50.111	1.00 22.48
ATOM	5552	CA	GLN	A	715	50.863	52.567	50.098	1.00 22.47
ATOM	5553	C	GLN	A	715	52.113	51.959	50.686	1.00 21.96
ATOM	5554	O	GLN	A	715	52.039	51.017	51.456	1.00 21.62
ATOM	5555	CB	GLN	A	715	50.590	52.006	48.671	1.00 23.33
ATOM	5556	CG	GLN	A	715	49.484	52.714	47.865	1.00 22.85
ATOM	5557	CD	GLN	A	715	48.460	51.803	47.206	1.00 23.26
ATOM	5558	OE1	GLN	A	715	47.763	52.237	46.256	1.00 26.33
ATOM	5559	NE2	GLN	A	715	48.357	50.553	47.672	1.00 21.21
ATOM	5560	N	SER	A	716	53.282	52.477	50.312	1.00 21.68
ATOM	5561	CA	SER	A	716	54.535	51.955	50.865	1.00 21.21
ATOM	5562	C	SER	A	716	54.790	52.436	52.288	1.00 21.13
ATOM	5563	O	SER	A	716	55.427	51.732	53.076	1.00 21.25
ATOM	5564	CB	SER	A	716	55.724	52.393	50.028	1.00 20.77
ATOM	5565	OG	SER	A	716	55.750	51.785	48.782	1.00 22.33
ATOM	5566	N	ALA	A	717	54.341	53.643	52.613	1.00 20.84
ATOM	5567	CA	ALA	A	717	54.434	54.129	54.003	1.00 21.57
ATOM	5568	C	ALA	A	717	53.702	53.210	54.988	1.00 21.28
ATOM	5569	O	ALA	A	717	54.114	53.054	56.120	1.00 21.81
ATOM	5570	CB	ALA	A	717	53.879	55.507	54.103	1.00 21.20
ATOM	5571	N	GLN	A	718	52.609	52.606	54.534	1.00 21.73
ATOM	5572	CA	GLN	A	718	51.833	51.680	55.345	1.00 20.77
ATOM	5573	C	GLN	A	718	52.543	50.336	55.332	1.00 22.09
ATOM	5574	O	GLN	A	718	52.531	49.610	56.321	1.00 21.08
ATOM	5575	CB	GLN	A	718	50.398	51.579	54.843	1.00 20.57
ATOM	5576	CG	GLN	A	718	49.534	52.822	55.036	1.00 19.42
ATOM	5577	CD	GLN	A	718	49.086	53.107	56.516	1.00 21.11
ATOM	5578	OE1	GLN	A	718	49.500	52.423	57.442	1.00 20.25
ATOM	5579	NE2	GLN	A	718	48.233	54.128	56.700	1.00 19.84
ATOM	5580	N	ILE	A	719	53.220	49.980	54.230	1.00 23.16
ATOM	5581	CA	ILE	A	719	54.015	48.754	54.294	1.00 23.10
ATOM	5582	C	ILE	A	719	55.157	48.879	55.323	1.00 23.04
ATOM	5583	O	ILE	A	719	55.402	47.996	56.111	1.00 21.76
ATOM	5584	CB	ILE	A	719	54.618	48.352	52.972	1.00 23.18
ATOM	5585	CG1	ILE	A	719	53.513	47.935	52.000	1.00 24.68
ATOM	5586	CG2	ILE	A	719	55.536	47.183	53.202	1.00 23.59

ATOM	5587	CD1	ILE	A	719	54.013	47.409	50.705	1.00 24.80
ATOM	5588	N	SER	A	720	55.894	49.966	55.254	1.00 23.75
ATOM	5589	CA	SER	A	720	57.033	50.144	56.140	1.00 23.27
ATOM	5590	C	SER	A	720	56.568	50.144	57.604	1.00 22.52
ATOM	5591	O	SER	A	720	57.156	49.515	58.470	1.00 23.39
ATOM	5592	CB	SER	A	720	57.801	51.421	55.759	1.00 22.10
ATOM	5593	OG	SER	A	720	57.097	52.586	56.142	1.00 22.44
ATOM	5594	N	LYS	A	721	55.476	50.818	57.878	1.00 23.57
ATOM	5595	CA	LYS	A	721	55.037	50.922	59.238	1.00 23.10
ATOM	5596	C	LYS	A	721	54.591	49.594	59.802	1.00 23.13
ATOM	5597	O	LYS	A	721	54.776	49.314	61.013	1.00 22.76
ATOM	5598	CB	LYS	A	721	53.910	51.917	59.355	1.00 24.56
ATOM	5599	CG	LYS	A	721	53.364	52.005	60.767	1.00 22.88
ATOM	5600	CD	LYS	A	721	52.518	53.195	60.884	1.00 26.29
ATOM	5601	CE	LYS	A	721	51.164	52.901	60.264	1.00 28.49
ATOM	5602	NZ	LYS	A	721	50.635	54.174	59.874	1.00 29.77
ATOM	5603	N	ALA	A	722	54.045	48.741	58.942	1.00 21.71
ATOM	5604	CA	ALA	A	722	53.639	47.437	59.407	1.00 21.65
ATOM	5605	C	ALA	A	722	54.871	46.531	59.693	1.00 21.58
ATOM	5606	O	ALA	A	722	54.842	45.733	60.629	1.00 21.73
ATOM	5607	CB	ALA	A	722	52.657	46.800	58.432	1.00 22.32
ATOM	5608	N	LEU	A	723	55.942	46.652	58.922	1.00 21.13
ATOM	5609	CA	LEU	A	723	57.132	45.849	59.176	1.00 22.59
ATOM	5610	C	LEU	A	723	57.833	46.308	60.477	1.00 23.17
ATOM	5611	O	LEU	A	723	58.415	45.510	61.161	1.00 23.51
ATOM	5612	CB	LEU	A	723	58.108	45.903	57.981	1.00 22.95
ATOM	5613	CG	LEU	A	723	57.581	45.424	56.608	1.00 25.06
ATOM	5614	CD1	LEU	A	723	58.559	45.715	55.470	1.00 25.60
ATOM	5615	CD2	LEU	A	723	57.321	43.963	56.630	1.00 26.11
ATOM	5616	N	VAL	A	724	57.749	47.605	60.778	1.00 25.38
ATOM	5617	CA	VAL	A	724	58.296	48.200	62.001	1.00 26.75
ATOM	5618	C	VAL	A	724	57.515	47.720	63.211	1.00 27.37
ATOM	5619	O	VAL	A	724	58.121	47.337	64.192	1.00 25.90
ATOM	5620	CB	VAL	A	724	58.306	49.765	61.944	1.00 26.41
ATOM	5621	CG1	VAL	A	724	58.535	50.414	63.349	1.00 26.97
ATOM	5622	CG2	VAL	A	724	59.370	50.244	60.938	1.00 27.86
ATOM	5623	N	ASP	A	725	56.185	47.729	63.144	1.00 29.06
ATOM	5624	CA	ASP	A	725	55.358	47.253	64.271	1.00 30.17
ATOM	5625	C	ASP	A	725	55.558	45.775	64.575	1.00 30.11
ATOM	5626	O	ASP	A	725	55.224	45.321	65.672	1.00 30.77
ATOM	5627	CB	ASP	A	725	53.866	47.502	64.029	1.00 31.42
ATOM	5628	CG	ASP	A	725	53.522	48.994	63.937	1.00 34.46
ATOM	5629	OD1	ASP	A	725	54.308	49.854	64.410	1.00 36.27
ATOM	5630	OD2	ASP	A	725	52.471	49.377	63.418	1.00 36.23
ATOM	5631	N	VAL	A	726	56.101	45.012	63.640	1.00 29.60
ATOM	5632	CA	VAL	A	726	56.341	43.590	63.901	1.00 30.28
ATOM	5633	C	VAL	A	726	57.861	43.262	64.099	1.00 30.42
ATOM	5634	O	VAL	A	726	58.249	42.117	64.275	1.00 31.01
ATOM	5635	CB	VAL	A	726	55.626	42.761	62.768	1.00 31.65
ATOM	5636	CG1	VAL	A	726	56.253	41.453	62.563	1.00 36.09
ATOM	5637	CG2	VAL	A	726	54.135	42.552	63.096	1.00 31.33
ATOM	5638	N	GLY	A	727	58.723	44.277	64.124	1.00 29.48
ATOM	5639	CA	GLY	A	727	60.150	44.064	64.297	1.00 28.80
ATOM	5640	C	GLY	A	727	60.860	43.434	63.102	1.00 28.95
ATOM	5641	O	GLY	A	727	61.785	42.644	63.272	1.00 26.93
ATOM	5642	N	VAL	A	728	60.464	43.775	61.869	1.00 29.03
ATOM	5643	CA	VAL	A	728	61.109	43.125	60.737	1.00 28.73
ATOM	5644	C	VAL	A	728	62.058	44.099	60.160	1.00 27.94
ATOM	5645	O	VAL	A	728	61.684	45.196	59.883	1.00 27.99
ATOM	5646	CB	VAL	A	728	60.082	42.672	59.639	1.00 29.59
ATOM	5647	CG1	VAL	A	728	60.754	42.337	58.345	1.00 29.88
ATOM	5648	CG2	VAL	A	728	59.350	41.464	60.091	1.00 30.54
ATOM	5649	N	ASP	A	729	63.309	43.736	59.986	1.00 28.23
ATOM	5650	CA	ASP	A	729	64.223	44.677	59.377	1.00 29.21
ATOM	5651	C	ASP	A	729	64.138	44.520	57.832	1.00 29.09
ATOM	5652	O	ASP	A	729	63.759	43.476	57.362	1.00 29.53
ATOM	5653	CB	ASP	A	729	65.622	44.432	59.885	1.00 29.68
ATOM	5654	CG	ASP	A	729	66.604	45.518	59.439	1.00 32.15
ATOM	5655	OD1	ASP	A	729	66.262	46.732	59.395	1.00 30.16
ATOM	5656	OD2	ASP	A	729	67.772	45.225	59.140	1.00 37.36

ATOM	5657	N	PHE	A	730	64.433	45.575	57.088	1.00	28.48
ATOM	5658	CA	PHE	A	730	64.397	45.571	55.627	1.00	28.46
ATOM	5659	C	PHE	A	730	65.099	46.820	55.186	1.00	28.48
ATOM	5660	O	PHE	A	730	65.429	47.666	56.012	1.00	28.30
ATOM	5661	CB	PHE	A	730	62.965	45.646	55.103	1.00	28.89
ATOM	5662	CG	PHE	A	730	62.222	46.857	55.585	1.00	27.56
ATOM	5663	CD1	PHE	A	730	61.704	46.895	56.851	1.00	26.58
ATOM	5664	CD2	PHE	A	730	62.081	47.960	54.788	1.00	28.64
ATOM	5665	CE1	PHE	A	730	61.031	48.016	57.316	1.00	25.09
ATOM	5666	CE2	PHE	A	730	61.424	49.083	55.247	1.00	28.36
ATOM	5667	CZ	PHE	A	730	60.895	49.098	56.528	1.00	27.46
ATOM	5668	N	GLN	A	731	65.298	46.966	53.889	1.00	28.36
ATOM	5669	CA	GLN	A	731	65.953	48.144	53.363	1.00	29.43
ATOM	5670	C	GLN	A	731	64.909	48.998	52.632	1.00	29.60
ATOM	5671	O	GLN	A	731	63.884	48.482	52.143	1.00	29.07
ATOM	5672	CB	GLN	A	731	67.110	47.739	52.447	1.00	29.69
ATOM	5673	CG	GLN	A	731	68.266	46.944	53.180	1.00	34.65
ATOM	5674	CD	GLN	A	731	69.065	46.054	52.228	1.00	39.33
ATOM	5675	OE1	GLN	A	731	69.361	44.845	52.519	1.00	40.43
ATOM	5676	NE2	GLN	A	731	69.438	46.638	51.089	1.00	40.02
ATOM	5677	N	ALA	A	732	65.217	50.285	52.493	1.00	28.93
ATOM	5678	CA	ALA	A	732	64.301	51.224	51.903	1.00	28.92
ATOM	5679	C	ALA	A	732	64.989	52.315	51.072	1.00	28.18
ATOM	5680	O	ALA	A	732	66.126	52.630	51.271	1.00	28.14
ATOM	5681	CB	ALA	A	732	63.538	51.875	52.975	1.00	29.05
ATOM	5682	N	MET	A	733	64.228	52.947	50.208	1.00	26.98
ATOM	5683	CA	MET	A	733	64.705	54.082	49.478	1.00	26.14
ATOM	5684	C	MET	A	733	63.474	54.827	48.990	1.00	25.35
ATOM	5685	O	MET	A	733	62.614	54.253	48.296	1.00	25.39
ATOM	5686	CB	MET	A	733	65.527	53.651	48.288	1.00	25.92
ATOM	5687	CG	MET	A	733	65.990	54.829	47.411	1.00	28.55
ATOM	5688	SD	MET	A	733	67.202	55.830	48.257	1.00	31.06
ATOM	5689	CE	MET	A	733	68.354	54.472	48.738	1.00	30.06
ATOM	5690	N	TRP	A	734	63.368	56.086	49.369	1.00	24.30
ATOM	5691	CA	TRP	A	734	62.312	56.941	48.858	1.00	23.89
ATOM	5692	C	TRP	A	734	62.965	57.750	47.759	1.00	23.75
ATOM	5693	O	TRP	A	734	64.171	57.880	47.786	1.00	24.07
ATOM	5694	CB	TRP	A	734	61.799	57.833	49.974	1.00	23.65
ATOM	5695	CG	TRP	A	734	62.719	58.977	50.358	1.00	21.94
ATOM	5696	CD1	TRP	A	734	62.863	60.139	49.699	1.00	20.95
ATOM	5697	CD2	TRP	A	734	63.542	59.079	51.523	1.00	19.59
ATOM	5698	NE1	TRP	A	734	63.763	60.954	50.351	1.00	21.98
ATOM	5699	CE2	TRP	A	734	64.177	60.328	51.485	1.00	19.47
ATOM	5700	CE3	TRP	A	734	63.808	58.243	52.602	1.00	19.81
ATOM	5701	CZ2	TRP	A	734	65.064	60.745	52.455	1.00	20.40
ATOM	5702	CZ3	TRP	A	734	64.723	58.649	53.554	1.00	19.84
ATOM	5703	CH2	TRP	A	734	65.316	59.894	53.490	1.00	21.63
ATOM	5704	N	TYR	A	735	62.228	58.240	46.762	1.00	23.61
ATOM	5705	CA	TYR	A	735	62.867	59.074	45.731	1.00	24.11
ATOM	5706	C	TYR	A	735	62.082	60.358	45.708	1.00	23.54
ATOM	5707	O	TYR	A	735	60.917	60.392	45.252	1.00	22.73
ATOM	5708	CB	TYR	A	735	62.927	58.420	44.330	1.00	23.78
ATOM	5709	CG	TYR	A	735	64.078	57.476	44.193	1.00	23.59
ATOM	5710	CD1	TYR	A	735	65.335	57.942	43.903	1.00	23.44
ATOM	5711	CD2	TYR	A	735	63.916	56.122	44.371	1.00	23.85
ATOM	5712	CE1	TYR	A	735	66.396	57.103	43.822	1.00	22.40
ATOM	5713	CE2	TYR	A	735	64.984	55.276	44.305	1.00	26.43
ATOM	5714	CZ	TYR	A	735	66.235	55.784	44.016	1.00	25.37
ATOM	5715	OH	TYR	A	735	67.325	54.958	43.938	1.00	24.12
ATOM	5716	N	THR	A	736	62.729	61.425	46.174	1.00	23.46
ATOM	5717	CA	THR	A	736	62.009	62.673	46.288	1.00	22.55
ATOM	5718	C	THR	A	736	61.636	63.356	45.010	1.00	23.03
ATOM	5719	O	THR	A	736	62.434	63.507	44.094	1.00	22.95
ATOM	5720	CB	THR	A	736	62.527	63.627	47.410	1.00	23.38
ATOM	5721	OG1	THR	A	736	62.759	64.943	46.931	1.00	19.53
ATOM	5722	CG2	THR	A	736	63.748	63.165	48.096	1.00	21.12
ATOM	5723	N	ASP	A	737	60.341	63.678	44.976	1.00	23.42
ATOM	5724	CA	ASP	A	737	59.642	64.375	43.929	1.00	23.60
ATOM	5725	C	ASP	A	737	59.514	63.537	42.632	1.00	24.09
ATOM	5726	O	ASP	A	737	59.127	64.055	41.586	1.00	25.66

ATOM	5727	CB	ASP	A	737	60.289	65.751	43.664	1.00 23.78
ATOM	5728	CG	ASP	A	737	59.901	66.832	44.699	1.00 24.93
ATOM	5729	OD1	ASP	A	737	59.103	66.578	45.666	1.00 26.08
ATOM	5730	OD2	ASP	A	737	60.392	68.008	44.638	1.00 24.36
ATOM	5731	N	GLU	A	738	59.825	62.259	42.696	1.00 24.70
ATOM	5732	CA	GLU	A	738	59.634	61.377	41.565	1.00 25.89
ATOM	5733	C	GLU	A	738	58.203	60.778	41.573	1.00 25.42
ATOM	5734	O	GLU	A	738	57.594	60.595	42.647	1.00 26.04
ATOM	5735	CB	GLU	A	738	60.621	60.221	41.653	1.00 26.72
ATOM	5736	CG	GLU	A	738	62.029	60.501	41.164	1.00 28.86
ATOM	5737	CD	GLU	A	738	62.054	61.057	39.764	1.00 31.38
ATOM	5738	OE1	GLU	A	738	61.602	60.349	38.821	1.00 30.60
ATOM	5739	OE2	GLU	A	738	62.518	62.205	39.634	1.00 31.30
ATOM	5740	N	ASP	A	739	57.672	60.439	40.398	1.00 25.27
ATOM	5741	CA	ASP	A	739	56.303	59.841	40.313	1.00 24.84
ATOM	5742	C	ASP	A	739	56.306	58.346	40.117	1.00 23.80
ATOM	5743	O	ASP	A	739	57.271	57.696	40.435	1.00 24.54
ATOM	5744	CB	ASP	A	739	55.440	60.535	39.267	1.00 23.94
ATOM	5745	CG	ASP	A	739	55.999	60.417	37.863	1.00 24.92
ATOM	5746	OD1	ASP	A	739	56.741	59.470	37.526	1.00 23.02
ATOM	5747	OD2	ASP	A	739	55.667	61.211	36.999	1.00 28.71
ATOM	5748	N	HIS	A	740	55.231	57.781	39.595	1.00 23.98
ATOM	5749	CA	HIS	A	740	55.135	56.331	39.442	1.00 23.70
ATOM	5750	C	HIS	A	740	56.210	55.741	38.510	1.00 23.84
ATOM	5751	O	HIS	A	740	56.576	54.593	38.651	1.00 23.71
ATOM	5752	CB	HIS	A	740	53.772	55.959	38.866	1.00 23.70
ATOM	5753	CG	HIS	A	740	53.382	54.554	39.160	1.00 25.99
ATOM	5754	ND1	HIS	A	740	53.592	53.977	40.397	1.00 26.03
ATOM	5755	CD2	HIS	A	740	52.802	53.600	38.387	1.00 30.23
ATOM	5756	CE1	HIS	A	740	53.150	52.733	40.374	1.00 28.49
ATOM	5757	NE2	HIS	A	740	52.658	52.480	39.169	1.00 28.58
ATOM	5758	N	GLY	A	741	56.681	56.535	37.552	1.00 24.11
ATOM	5759	CA	GLY	A	741	57.718	56.102	36.630	1.00 24.98
ATOM	5760	C	GLY	A	741	59.147	56.281	37.093	1.00 25.21
ATOM	5761	O	GLY	A	741	60.049	55.720	36.462	1.00 27.78
ATOM	5762	N	ILE	A	742	59.370	57.036	38.163	1.00 24.28
ATOM	5763	CA	ILE	A	742	60.705	57.304	38.668	1.00 24.91
ATOM	5764	C	ILE	A	742	61.654	57.350	37.466	1.00 25.71
ATOM	5765	O	ILE	A	742	62.585	56.603	37.420	1.00 24.94
ATOM	5766	CB	ILE	A	742	61.209	56.243	39.746	1.00 25.62
ATOM	5767	CG1	ILE	A	742	60.207	56.063	40.898	1.00 24.75
ATOM	5768	CG2	ILE	A	742	62.507	56.668	40.361	1.00 23.09
ATOM	5769	CD1	ILE	A	742	60.502	54.911	41.752	1.00 26.48
ATOM	5770	N	ALA	A	743	61.437	58.281	36.545	1.00 26.23
ATOM	5771	CA	ALA	A	743	62.089	58.214	35.256	1.00 27.99
ATOM	5772	C	ALA	A	743	62.870	59.440	34.873	1.00 28.21
ATOM	5773	O	ALA	A	743	63.293	59.519	33.736	1.00 28.10
ATOM	5774	CB	ALA	A	743	60.999	57.924	34.117	1.00 28.61
ATOM	5775	N	SER	A	744	63.001	60.437	35.735	1.00 27.98
ATOM	5776	CA	SER	A	744	63.927	61.485	35.369	1.00 29.60
ATOM	5777	C	SER	A	744	65.268	60.734	35.212	1.00 29.10
ATOM	5778	O	SER	A	744	65.435	59.690	35.841	1.00 29.17
ATOM	5779	CB	SER	A	744	63.909	62.637	36.405	1.00 29.43
ATOM	5780	OG	SER	A	744	64.575	62.278	37.565	1.00 35.33
ATOM	5781	N	SER	A	745	66.186	61.158	34.323	1.00 29.84
ATOM	5782	CA	SER	A	745	67.418	60.366	34.078	1.00 29.46
ATOM	5783	C	SER	A	745	68.256	60.108	35.306	1.00 28.35
ATOM	5784	O	SER	A	745	68.708	58.991	35.484	1.00 29.11
ATOM	5785	CB	SER	A	745	68.320	60.991	33.000	1.00 30.81
ATOM	5786	OG	SER	A	745	68.189	62.390	33.082	1.00 35.58
ATOM	5787	N	THR	A	746	68.472	61.091	36.164	1.00 27.21
ATOM	5788	CA	THR	A	746	69.252	60.797	37.370	1.00 27.83
ATOM	5789	C	THR	A	746	68.560	59.804	38.281	1.00 26.82
ATOM	5790	O	THR	A	746	69.204	58.902	38.767	1.00 24.88
ATOM	5791	CB	THR	A	746	69.584	62.021	38.176	1.00 27.88
ATOM	5792	OG1	THR	A	746	68.398	62.792	38.395	1.00 29.32
ATOM	5793	CG2	THR	A	746	70.580	62.912	37.400	1.00 29.80
ATOM	5794	N	ALA	A	747	67.249	59.933	38.483	1.00 26.80
ATOM	5795	CA	ALA	A	747	66.589	58.974	39.380	1.00 26.79
ATOM	5796	C	ALA	A	747	66.598	57.594	38.747	1.00 26.91

ATOM	5797	O	ALA	A	747	66.853	56.597	39.410	1.00 28.23
ATOM	5798	CB	ALA	A	747	65.199	59.398	39.692	1.00 27.13
ATOM	5799	N	HIS	A	748	66.319	57.513	37.451	1.00 26.90
ATOM	5800	CA	HIS	A	748	66.323	56.221	36.779	1.00 25.91
ATOM	5801	C	HIS	A	748	67.712	55.601	36.943	1.00 24.98
ATOM	5802	O	HIS	A	748	67.857	54.444	37.288	1.00 24.25
ATOM	5803	CB	HIS	A	748	65.995	56.434	35.290	1.00 26.95
ATOM	5804	CG	HIS	A	748	66.175	55.220	34.452	1.00 26.97
ATOM	5805	ND1	HIS	A	748	65.215	54.252	34.345	1.00 26.07
ATOM	5806	CD2	HIS	A	748	67.198	54.829	33.660	1.00 30.08
ATOM	5807	CE1	HIS	A	748	65.644	53.299	33.540	1.00 30.19
ATOM	5808	NE2	HIS	A	748	66.852	53.620	33.119	1.00 28.24
ATOM	5809	N	GLN	A	749	68.758	56.384	36.748	1.00 24.83
ATOM	5810	CA	GLN	A	749	70.109	55.821	36.866	1.00 24.85
ATOM	5811	C	GLN	A	749	70.350	55.378	38.323	1.00 23.61
ATOM	5812	O	GLN	A	749	70.890	54.295	38.603	1.00 21.42
ATOM	5813	CB	GLN	A	749	71.156	56.848	36.423	1.00 25.62
ATOM	5814	CG	GLN	A	749	71.047	57.212	34.965	1.00 28.72
ATOM	5815	CD	GLN	A	749	72.024	58.289	34.547	1.00 35.38
ATOM	5816	OE1	GLN	A	749	73.220	58.031	34.446	1.00 40.06
ATOM	5817	NE2	GLN	A	749	71.524	59.494	34.295	1.00 36.86
ATOM	5818	N	HIS	A	750	69.838	56.167	39.257	1.00 22.63
ATOM	5819	CA	HIS	A	750	70.119	55.874	40.639	1.00 24.02
ATOM	5820	C	HIS	A	750	69.340	54.675	41.143	1.00 22.54
ATOM	5821	O	HIS	A	750	69.909	53.814	41.764	1.00 23.89
ATOM	5822	CB	HIS	A	750	69.965	57.148	41.492	1.00 24.83
ATOM	5823	CG	HIS	A	750	70.304	56.957	42.934	1.00 27.84
ATOM	5824	ND1	HIS	A	750	71.263	57.705	43.572	1.00 30.28
ATOM	5825	CD2	HIS	A	750	69.812	56.104	43.863	1.00 28.68
ATOM	5826	CE1	HIS	A	750	71.343	57.332	44.837	1.00 27.63
ATOM	5827	NE2	HIS	A	750	70.485	56.348	45.034	1.00 28.75
ATOM	5828	N	ILE	A	751	68.073	54.535	40.831	1.00 23.23
ATOM	5829	CA	ILE	A	751	67.355	53.328	41.292	1.00 22.24
ATOM	5830	C	ILE	A	751	67.920	52.028	40.729	1.00 23.39
ATOM	5831	O	ILE	A	751	68.004	51.037	41.442	1.00 23.47
ATOM	5832	CB	ILE	A	751	65.847	53.429	41.013	1.00 21.86
ATOM	5833	CG1	ILE	A	751	65.057	52.351	41.771	1.00 21.82
ATOM	5834	CG2	ILE	A	751	65.526	53.269	39.575	1.00 21.39
ATOM	5835	CD1	ILE	A	751	63.490	52.447	41.548	1.00 22.67
ATOM	5836	N	TYR	A	752	68.256	51.981	39.439	1.00 23.82
ATOM	5837	CA	TYR	A	752	68.771	50.716	38.890	1.00 24.50
ATOM	5838	C	TYR	A	752	70.154	50.417	39.436	1.00 23.94
ATOM	5839	O	TYR	A	752	70.538	49.276	39.554	1.00 24.99
ATOM	5840	CB	TYR	A	752	68.731	50.678	37.353	1.00 24.24
ATOM	5841	CG	TYR	A	752	67.348	50.335	36.850	1.00 24.42
ATOM	5842	CD1	TYR	A	752	66.895	49.021	36.863	1.00 25.36
ATOM	5843	CD2	TYR	A	752	66.491	51.310	36.418	1.00 23.66
ATOM	5844	CE1	TYR	A	752	65.662	48.698	36.388	1.00 26.62
ATOM	5845	CE2	TYR	A	752	65.230	50.996	35.993	1.00 26.62
ATOM	5846	CZ	TYR	A	752	64.823	49.679	35.983	1.00 27.74
ATOM	5847	OH	TYR	A	752	63.552	49.341	35.576	1.00 31.07
ATOM	5848	N	THR	A	753	70.881	51.445	39.792	1.00 23.66
ATOM	5849	CA	THR	A	753	72.180	51.266	40.416	1.00 24.64
ATOM	5850	C	THR	A	753	72.003	50.689	41.809	1.00 24.38
ATOM	5851	O	THR	A	753	72.634	49.706	42.159	1.00 24.12
ATOM	5852	CB	THR	A	753	72.948	52.620	40.431	1.00 25.26
ATOM	5853	OG1	THR	A	753	73.155	53.053	39.068	1.00 25.67
ATOM	5854	CG2	THR	A	753	74.346	52.468	40.989	1.00 24.69
ATOM	5855	N	HIS	A	754	71.066	51.235	42.571	1.00 25.36
ATOM	5856	CA	HIS	A	754	70.832	50.753	43.940	1.00 25.62
ATOM	5857	C	HIS	A	754	70.298	49.342	43.886	1.00 25.39
ATOM	5858	O	HIS	A	754	70.694	48.478	44.673	1.00 24.87
ATOM	5859	CB	HIS	A	754	69.855	51.667	44.667	1.00 26.41
ATOM	5860	CG	HIS	A	754	69.948	51.631	46.158	1.00 27.10
ATOM	5861	ND1	HIS	A	754	71.102	51.933	46.843	1.00 30.98
ATOM	5862	CD2	HIS	A	754	69.012	51.349	47.101	1.00 29.11
ATOM	5863	CE1	HIS	A	754	70.877	51.807	48.146	1.00 32.00
ATOM	5864	NE2	HIS	A	754	69.620	51.443	48.320	1.00 27.79
ATOM	5865	N	MET	A	755	69.380	49.086	42.971	1.00 24.38
ATOM	5866	CA	MET	A	755	68.807	47.753	42.904	1.00 24.59

ATOM	5867	C	MET	A	755	69.860	46.718	42.458	1.00	24.66
ATOM	5868	O	MET	A	755	69.820	45.559	42.880	1.00	23.92
ATOM	5869	CB	MET	A	755	67.606	47.727	41.968	1.00	24.88
ATOM	5870	CG	MET	A	755	66.364	48.479	42.427	1.00	26.01
ATOM	5871	SD	MET	A	755	64.919	48.067	41.396	1.00	28.08
ATOM	5872	CE	MET	A	755	65.463	48.670	39.959	1.00	29.78
ATOM	5873	N	SER	A	756	70.809	47.118	41.612	1.00	25.65
ATOM	5874	CA	SER	A	756	71.831	46.155	41.172	1.00	26.67
ATOM	5875	C	SER	A	756	72.724	45.760	42.352	1.00	26.83
ATOM	5876	O	SER	A	756	72.988	44.568	42.559	1.00	26.03
ATOM	5877	CB	SER	A	756	72.701	46.723	40.043	1.00	26.64
ATOM	5878	OG	SER	A	756	71.911	47.057	38.918	1.00	28.16
ATOM	5879	N	HIS	A	757	73.171	46.750	43.139	1.00	27.24
ATOM	5880	CA	HIS	A	757	73.969	46.437	44.313	1.00	27.68
ATOM	5881	C	HIS	A	757	73.222	45.445	45.171	1.00	27.98
ATOM	5882	O	HIS	A	757	73.808	44.452	45.642	1.00	28.11
ATOM	5883	CB	HIS	A	757	74.315	47.685	45.147	1.00	28.80
ATOM	5884	CG	HIS	A	757	75.311	48.605	44.489	1.00	29.61
ATOM	5885	ND1	HIS	A	757	76.438	48.146	43.838	1.00	34.38
ATOM	5886	CD2	HIS	A	757	75.363	49.956	44.418	1.00	30.86
ATOM	5887	CE1	HIS	A	757	77.124	49.177	43.370	1.00	36.17
ATOM	5888	NE2	HIS	A	757	76.493	50.289	43.715	1.00	33.47
ATOM	5889	N	PHE	A	758	71.915	45.649	45.335	1.00	27.26
ATOM	5890	CA	PHE	A	758	71.140	44.810	46.240	1.00	26.79
ATOM	5891	C	PHE	A	758	71.021	43.381	45.735	1.00	28.64
ATOM	5892	O	PHE	A	758	71.187	42.438	46.508	1.00	28.71
ATOM	5893	CB	PHE	A	758	69.771	45.447	46.514	1.00	26.31
ATOM	5894	CG	PHE	A	758	68.874	44.611	47.374	1.00	25.47
ATOM	5895	CD1	PHE	A	758	68.008	43.691	46.801	1.00	24.16
ATOM	5896	CD2	PHE	A	758	68.868	44.753	48.753	1.00	24.21
ATOM	5897	CE1	PHE	A	758	67.143	42.914	47.595	1.00	23.28
ATOM	5898	CE2	PHE	A	758	68.015	43.957	49.547	1.00	25.66
ATOM	5899	CZ	PHE	A	758	67.164	43.030	48.943	1.00	23.26
ATOM	5900	N	ILE	A	759	70.771	43.186	44.442	1.00	29.59
ATOM	5901	CA	ILE	A	759	70.711	41.827	43.920	1.00	30.59
ATOM	5902	C	ILE	A	759	72.091	41.168	44.009	1.00	31.21
ATOM	5903	O	ILE	A	759	72.204	39.986	44.386	1.00	30.69
ATOM	5904	CB	ILE	A	759	70.215	41.816	42.465	1.00	31.21
ATOM	5905	CG1	ILE	A	759	68.740	42.175	42.397	1.00	33.66
ATOM	5906	CG2	ILE	A	759	70.465	40.451	41.860	1.00	33.00
ATOM	5907	CD1	ILE	A	759	67.781	41.070	43.005	1.00	35.66
ATOM	5908	N	LYS	A	760	73.140	41.922	43.668	1.00	32.46
ATOM	5909	CA	LYS	A	760	74.514	41.392	43.708	1.00	33.72
ATOM	5910	C	LYS	A	760	74.896	40.871	45.109	1.00	34.58
ATOM	5911	O	LYS	A	760	75.415	39.770	45.248	1.00	35.10
ATOM	5912	CB	LYS	A	760	75.523	42.433	43.174	1.00	33.78
ATOM	5913	CG	LYS	A	760	75.359	42.680	41.645	1.00	35.41
ATOM	5914	CD	LYS	A	760	76.636	42.811	40.894	1.00	37.74
ATOM	5915	CE	LYS	A	760	77.512	43.919	41.411	1.00	39.01
ATOM	5916	NZ	LYS	A	760	78.711	44.128	40.596	1.00	39.64
ATOM	5917	N	GLN	A	761	74.573	41.612	46.160	1.00	35.44
ATOM	5918	CA	GLN	A	761	74.928	41.152	47.495	1.00	35.72
ATOM	5919	C	GLN	A	761	74.048	40.003	47.970	1.00	36.14
ATOM	5920	O	GLN	A	761	74.552	39.051	48.584	1.00	34.84
ATOM	5921	CB	GLN	A	761	74.992	42.308	48.476	1.00	36.42
ATOM	5922	CG	GLN	A	761	73.719	42.855	48.947	1.00	39.46
ATOM	5923	CD	GLN	A	761	73.014	41.956	49.923	1.00	44.27
ATOM	5924	OE1	GLN	A	761	73.652	41.146	50.597	1.00	47.15
ATOM	5925	NE2	GLN	A	761	71.669	42.072	49.987	1.00	46.69
ATOM	5926	N	CYS	A	762	72.765	40.013	47.599	1.00	36.07
ATOM	5927	CA	CYS	A	762	71.921	38.898	47.934	1.00	37.51
ATOM	5928	C	CYS	A	762	72.395	37.625	47.229	1.00	37.30
ATOM	5929	O	CYS	A	762	72.158	36.518	47.728	1.00	37.19
ATOM	5930	CB	CYS	A	762	70.457	39.208	47.609	1.00	37.88
ATOM	5931	SG	CYS	A	762	69.317	37.793	47.558	1.00	43.96
ATOM	5932	N	PHE	A	763	73.053	37.773	46.076	1.00	37.34
ATOM	5933	CA	PHE	A	763	73.506	36.622	45.313	1.00	37.27
ATOM	5934	C	PHE	A	763	74.982	36.320	45.533	1.00	38.08
ATOM	5935	O	PHE	A	763	75.516	35.436	44.902	1.00	37.30
ATOM	5936	CB	PHE	A	763	73.242	36.832	43.818	1.00	37.64

ATOM	5937	CG	PHE	A	763	71.803	36.621	43.415	1.00	37.37
ATOM	5938	CD1	PHE	A	763	70.904	36.029	44.274	1.00	34.64
ATOM	5939	CD2	PHE	A	763	71.349	37.052	42.189	1.00	36.85
ATOM	5940	CE1	PHE	A	763	69.611	35.850	43.907	1.00	33.81
ATOM	5941	CE2	PHE	A	763	70.032	36.872	41.828	1.00	35.30
ATOM	5942	CZ	PHE	A	763	69.176	36.272	42.691	1.00	33.56
ATOM	5943	N	SER	A	764	75.606	37.034	46.467	1.00	39.95
ATOM	5944	CA	SER	A	764	77.031	36.880	46.818	1.00	41.43
ATOM	5945	C	SER	A	764	77.910	37.043	45.578	1.00	42.27
ATOM	5946	O	SER	A	764	78.843	36.274	45.374	1.00	42.04
ATOM	5947	CB	SER	A	764	77.315	35.531	47.502	1.00	41.77
ATOM	5948	OG	SER	A	764	76.407	35.254	48.579	1.00	41.18
ATOM	5949	N	LEU	A	765	77.587	38.058	44.772	1.00	42.51
ATOM	5950	CA	LEU	A	765	78.294	38.354	43.535	1.00	43.43
ATOM	5951	C	LEU	A	765	79.064	39.660	43.666	1.00	44.05
ATOM	5952	O	LEU	A	765	78.499	40.660	44.070	1.00	43.63
ATOM	5953	CB	LEU	A	765	77.307	38.511	42.357	1.00	42.63
ATOM	5954	CG	LEU	A	765	76.470	37.312	41.885	1.00	43.40
ATOM	5955	CD1	LEU	A	765	75.445	37.749	40.818	1.00	42.42
ATOM	5956	CD2	LEU	A	765	77.358	36.214	41.312	1.00	44.39
ATOM	5957	N	PRO	A	766	80.352	39.649	43.334	1.00	45.52
ATOM	5958	CA	PRO	A	766	81.149	40.878	43.291	1.00	46.31
ATOM	5959	C	PRO	A	766	80.972	41.528	41.939	1.00	47.02
ATOM	5960	O	PRO	A	766	80.814	40.744	40.984	1.00	48.05
ATOM	5961	CB	PRO	A	766	82.582	40.368	43.425	1.00	46.75
ATOM	5962	CG	PRO	A	766	82.441	38.840	43.696	1.00	46.59
ATOM	5963	CD	PRO	A	766	81.168	38.462	43.016	1.00	45.98
TER	5964		PRO	A	766					
HETATM	5965	C1	NAG	A	793	52.247	84.441	26.665	1.00	56.57
HETATM	5966	C2	NAG	A	793	51.667	85.774	26.181	1.00	59.26
HETATM	5967	N2	NAG	A	793	50.405	85.614	25.454	1.00	60.75
HETATM	5968	C7	NAG	A	793	50.230	84.786	24.417	1.00	63.64
HETATM	5969	O7	NAG	A	793	49.104	84.445	24.028	1.00	64.39
HETATM	5970	C8	NAG	A	793	51.434	84.255	23.678	1.00	63.71
HETATM	5971	C3	NAG	A	793	52.732	86.604	25.440	1.00	59.62
HETATM	5972	O3	NAG	A	793	52.304	87.904	25.060	1.00	59.46
HETATM	5973	C4	NAG	A	793	53.931	86.799	26.333	1.00	59.23
HETATM	5974	O4	NAG	A	793	54.958	87.354	25.538	1.00	58.87
HETATM	5975	C5	NAG	A	793	54.379	85.491	26.977	1.00	58.73
HETATM	5976	C6	NAG	A	793	55.422	85.799	28.061	1.00	58.77
HETATM	5977	O6	NAG	A	793	54.806	86.202	29.259	1.00	58.36
HETATM	5978	O5	NAG	A	793	53.306	84.773	27.544	1.00	56.72
HETATM	5979	C1	NAG	A	794	57.357	62.419	-5.828	1.00	28.91
HETATM	5980	C2	NAG	A	794	57.044	63.800	-5.253	1.00	30.20
HETATM	5981	N2	NAG	A	794	56.632	63.635	-3.866	1.00	29.11
HETATM	5982	C7	NAG	A	794	57.358	63.964	-2.815	1.00	29.67
HETATM	5983	O7	NAG	A	794	58.514	64.379	-2.847	1.00	28.47
HETATM	5984	C8	NAG	A	794	56.666	63.783	-1.481	1.00	30.86
HETATM	5985	C3	NAG	A	794	55.889	64.431	-6.033	1.00	31.06
HETATM	5986	O3	NAG	A	794	55.644	65.736	-5.613	1.00	32.22
HETATM	5987	C4	NAG	A	794	56.322	64.529	-7.468	1.00	32.03
HETATM	5988	O4	NAG	A	794	55.313	65.150	-8.198	1.00	30.75
HETATM	5989	C5	NAG	A	794	56.558	63.108	-7.965	1.00	32.35
HETATM	5990	C6	NAG	A	794	56.903	63.109	-9.455	1.00	32.88
HETATM	5991	O6	NAG	A	794	57.858	64.097	-9.728	1.00	30.65
HETATM	5992	O5	NAG	A	794	57.632	62.574	-7.216	1.00	31.57
HETATM	5993	C1	NAG	A	795	26.557	83.475	27.320	1.00	69.38
HETATM	5994	C2	NAG	A	795	26.517	84.675	28.278	1.00	70.37
HETATM	5995	N2	NAG	A	795	27.031	85.876	27.627	1.00	71.29
HETATM	5996	C7	NAG	A	795	26.337	86.484	26.653	1.00	72.14
HETATM	5997	O7	NAG	A	795	25.108	86.415	26.530	1.00	71.13
HETATM	5998	C8	NAG	A	795	27.135	87.272	25.659	1.00	72.66
HETATM	5999	C3	NAG	A	795	27.147	84.328	29.631	1.00	68.73
HETATM	6000	O3	NAG	A	795	27.036	85.420	30.524	1.00	67.24
HETATM	6001	C4	NAG	A	795	26.366	83.126	30.165	1.00	68.79
HETATM	6002	O4	NAG	A	795	26.805	82.703	31.436	1.00	65.52
HETATM	6003	C5	NAG	A	795	26.453	81.990	29.151	1.00	70.52
HETATM	6004	C6	NAG	A	795	25.734	80.729	29.625	1.00	71.77
HETATM	6005	O6	NAG	A	795	25.527	79.863	28.524	1.00	71.65
HETATM	6006	O5	NAG	A	795	25.881	82.386	27.919	1.00	70.37

HETATM	6007	C1	NAG	A	796	28.778	69.824	39.914	1.00	33.92
HETATM	6008	C2	NAG	A	796	27.615	70.692	39.410	1.00	35.69
HETATM	6009	N2	NAG	A	796	28.001	71.731	38.471	1.00	33.86
HETATM	6010	C7	NAG	A	796	27.907	71.604	37.160	1.00	34.06
HETATM	6011	O7	NAG	A	796	27.527	70.594	36.590	1.00	36.08
HETATM	6012	C8	NAG	A	796	28.341	72.778	36.352	1.00	36.76
HETATM	6013	C3	NAG	A	796	27.015	71.446	40.578	1.00	38.11
HETATM	6014	O3	NAG	A	796	25.987	72.255	40.072	1.00	38.60
HETATM	6015	C4	NAG	A	796	26.563	70.490	41.666	1.00	40.14
HETATM	6016	O4	NAG	A	796	26.063	71.140	42.848	1.00	44.49
HETATM	6017	C5	NAG	A	796	27.784	69.659	42.014	1.00	40.15
HETATM	6018	C6	NAG	A	796	27.444	68.688	43.129	1.00	40.02
HETATM	6019	O6	NAG	A	796	26.267	68.081	42.668	1.00	44.11
HETATM	6020	O5	NAG	A	796	28.232	68.954	40.876	1.00	33.47
ATOM	6021	N	SER	B	39	83.809	35.290	81.108	1.00	44.51
ATOM	6022	CA	SER	B	39	82.610	34.403	81.141	1.00	44.41
ATOM	6023	C	SER	B	39	81.248	35.137	81.269	1.00	44.06
ATOM	6024	O	SER	B	39	80.264	34.696	80.681	1.00	44.10
ATOM	6025	CB	SER	B	39	82.751	33.364	82.277	1.00	44.82
ATOM	6026	OG	SER	B	39	81.500	32.762	82.630	1.00	44.84
ATOM	6027	N	ARG	B	40	81.151	36.191	82.082	1.00	43.21
ATOM	6028	CA	ARG	B	40	79.877	36.926	82.198	1.00	42.08
ATOM	6029	C	ARG	B	40	79.254	37.325	80.843	1.00	40.45
ATOM	6030	O	ARG	B	40	79.926	37.440	79.822	1.00	39.04
ATOM	6031	CB	ARG	B	40	80.006	38.223	83.002	1.00	42.78
ATOM	6032	CG	ARG	B	40	80.757	38.172	84.357	1.00	43.26
ATOM	6033	CD	ARG	B	40	82.151	38.804	84.248	1.00	45.08
ATOM	6034	NE	ARG	B	40	82.289	40.180	84.761	1.00	46.19
ATOM	6035	CZ	ARG	B	40	83.237	41.042	84.357	1.00	47.79
ATOM	6036	NH1	ARG	B	40	84.100	40.711	83.413	1.00	49.11
ATOM	6037	NH2	ARG	B	40	83.318	42.256	84.868	1.00	49.15
ATOM	6038	N	LYS	B	41	77.947	37.556	80.852	1.00	39.26
ATOM	6039	CA	LYS	B	41	77.314	38.071	79.643	1.00	38.31
ATOM	6040	C	LYS	B	41	77.790	39.496	79.349	1.00	36.90
ATOM	6041	O	LYS	B	41	78.326	40.226	80.180	1.00	36.21
ATOM	6042	CB	LYS	B	41	75.796	38.000	79.712	1.00	38.22
ATOM	6043	CG	LYS	B	41	75.166	38.814	80.815	1.00	39.94
ATOM	6044	CD	LYS	B	41	73.659	38.723	80.787	1.00	42.54
ATOM	6045	CE	LYS	B	41	72.987	40.028	80.320	1.00	44.09
ATOM	6046	NZ	LYS	B	41	73.185	40.341	78.870	1.00	43.20
ATOM	6047	N	THR	B	42	77.593	39.860	78.118	1.00	35.87
ATOM	6048	CA	THR	B	42	77.981	41.136	77.584	1.00	35.53
ATOM	6049	C	THR	B	42	76.658	41.941	77.535	1.00	33.81
ATOM	6050	O	THR	B	42	75.604	41.329	77.564	1.00	34.18
ATOM	6051	CB	THR	B	42	78.542	40.805	76.215	1.00	36.04
ATOM	6052	OG1	THR	B	42	79.892	41.260	76.064	1.00	38.02
ATOM	6053	CG2	THR	B	42	77.750	41.422	75.134	1.00	36.36
ATOM	6054	N	TYR	B	43	76.712	43.277	77.534	1.00	31.50
ATOM	6055	CA	TYR	B	43	75.520	44.133	77.483	1.00	30.40
ATOM	6056	C	TYR	B	43	75.040	44.146	76.014	1.00	30.55
ATOM	6057	O	TYR	B	43	75.735	44.670	75.120	1.00	29.79
ATOM	6058	CB	TYR	B	43	75.864	45.557	77.976	1.00	29.97
ATOM	6059	CG	TYR	B	43	74.702	46.530	78.032	1.00	28.32
ATOM	6060	CD1	TYR	B	43	73.805	46.508	79.066	1.00	26.99
ATOM	6061	CD2	TYR	B	43	74.512	47.470	77.042	1.00	27.08
ATOM	6062	CE1	TYR	B	43	72.715	47.391	79.109	1.00	27.36
ATOM	6063	CE2	TYR	B	43	73.467	48.335	77.081	1.00	28.70
ATOM	6064	CZ	TYR	B	43	72.557	48.300	78.113	1.00	27.28
ATOM	6065	OH	TYR	B	43	71.501	49.199	78.147	1.00	28.22
ATOM	6066	N	THR	B	44	73.881	43.556	75.748	1.00	30.61
ATOM	6067	CA	THR	B	44	73.467	43.377	74.351	1.00	31.45
ATOM	6068	C	THR	B	44	72.530	44.459	73.804	1.00	31.97
ATOM	6069	O	THR	B	44	72.050	45.329	74.531	1.00	32.10
ATOM	6070	CB	THR	B	44	72.778	42.027	74.174	1.00	31.45
ATOM	6071	OG1	THR	B	44	71.592	42.008	74.944	1.00	32.12
ATOM	6072	CG2	THR	B	44	73.598	40.874	74.752	1.00	33.15
ATOM	6073	N	LEU	B	45	72.258	44.387	72.503	1.00	32.35
ATOM	6074	CA	LEU	B	45	71.322	45.317	71.886	1.00	32.17
ATOM	6075	C	LEU	B	45	69.951	45.080	72.518	1.00	32.45
ATOM	6076	O	LEU	B	45	69.219	46.016	72.820	1.00	34.45

ATOM	6077	CB	LEU	B	45	71.277	45.089	70.376	1.00	31.73
ATOM	6078	CG	LEU	B	45	70.268	45.920	69.570	1.00	31.61
ATOM	6079	CD1	LEU	B	45	70.556	47.392	69.759	1.00	27.17
ATOM	6080	CD2	LEU	B	45	70.220	45.528	68.036	1.00	31.95
ATOM	6081	N	THR	B	46	69.577	43.835	72.715	1.00	32.08
ATOM	6082	CA	THR	B	46	68.289	43.560	73.345	1.00	32.44
ATOM	6083	C	THR	B	46	68.264	44.073	74.798	1.00	31.32
ATOM	6084	O	THR	B	46	67.229	44.472	75.275	1.00	30.32
ATOM	6085	CB	THR	B	46	67.985	42.039	73.325	1.00	32.87
ATOM	6086	OG1	THR	B	46	67.778	41.617	71.991	1.00	33.53
ATOM	6087	CG2	THR	B	46	66.664	41.732	73.905	1.00	33.39
ATOM	6088	N	ASP	B	47	69.396	44.063	75.504	1.00	30.43
ATOM	6089	CA	ASP	B	47	69.383	44.642	76.843	1.00	30.27
ATOM	6090	C	ASP	B	47	69.012	46.124	76.753	1.00	29.58
ATOM	6091	O	ASP	B	47	68.184	46.602	77.495	1.00	28.74
ATOM	6092	CB	ASP	B	47	70.711	44.462	77.579	1.00	30.15
ATOM	6093	CG	ASP	B	47	70.990	43.013	77.958	1.00	29.26
ATOM	6094	OD1	ASP	B	47	70.064	42.291	78.382	1.00	28.86
ATOM	6095	OD2	ASP	B	47	72.127	42.522	77.875	1.00	29.48
ATOM	6096	N	TYR	B	48	69.570	46.824	75.786	1.00	29.34
ATOM	6097	CA	TYR	B	48	69.287	48.234	75.649	1.00	29.95
ATOM	6098	C	TYR	B	48	67.869	48.475	75.180	1.00	30.53
ATOM	6099	O	TYR	B	48	67.152	49.340	75.738	1.00	29.81
ATOM	6100	CB	TYR	B	48	70.275	48.878	74.675	1.00	30.20
ATOM	6101	CG	TYR	B	48	69.859	50.254	74.224	1.00	29.34
ATOM	6102	CD1	TYR	B	48	69.649	51.273	75.144	1.00	28.33
ATOM	6103	CD2	TYR	B	48	69.650	50.521	72.831	1.00	29.07
ATOM	6104	CE1	TYR	B	48	69.270	52.514	74.737	1.00	27.28
ATOM	6105	CE2	TYR	B	48	69.263	51.773	72.458	1.00	27.71
ATOM	6106	CZ	TYR	B	48	69.056	52.741	73.376	1.00	28.43
ATOM	6107	OH	TYR	B	48	68.681	53.952	72.932	1.00	31.85
ATOM	6108	N	LEU	B	49	67.438	47.687	74.195	1.00	30.94
ATOM	6109	CA	LEU	B	49	66.091	47.858	73.649	1.00	32.45
ATOM	6110	C	LEU	B	49	64.983	47.561	74.640	1.00	33.72
ATOM	6111	O	LEU	B	49	64.011	48.295	74.713	1.00	33.40
ATOM	6112	CB	LEU	B	49	65.920	46.998	72.387	1.00	32.26
ATOM	6113	CG	LEU	B	49	66.194	47.788	71.098	1.00	31.99
ATOM	6114	CD1	LEU	B	49	67.040	48.975	71.308	1.00	29.89
ATOM	6115	CD2	LEU	B	49	66.713	46.908	69.977	1.00	33.89
ATOM	6116	N	LYS	B	50	65.121	46.481	75.400	1.00	35.26
ATOM	6117	CA	LYS	B	50	64.090	46.107	76.374	1.00	37.22
ATOM	6118	C	LYS	B	50	64.293	46.640	77.806	1.00	37.29
ATOM	6119	O	LYS	B	50	63.612	46.202	78.711	1.00	37.02
ATOM	6120	CB	LYS	B	50	64.007	44.583	76.466	1.00	38.22
ATOM	6121	CG	LYS	B	50	63.593	43.860	75.230	1.00	40.87
ATOM	6122	CD	LYS	B	50	64.223	42.456	75.249	1.00	47.00
ATOM	6123	CE	LYS	B	50	63.689	41.520	76.384	1.00	49.69
ATOM	6124	NZ	LYS	B	50	64.640	40.396	76.655	1.00	49.70
ATOM	6125	N	ASN	B	51	65.261	47.520	78.031	1.00	38.20
ATOM	6126	CA	ASN	B	51	65.390	48.144	79.339	1.00	39.09
ATOM	6127	C	ASN	B	51	65.606	47.121	80.454	1.00	39.31
ATOM	6128	O	ASN	B	51	65.004	47.216	81.504	1.00	39.91
ATOM	6129	CB	ASN	B	51	64.085	48.890	79.618	1.00	39.37
ATOM	6130	CG	ASN	B	51	64.298	50.254	80.233	1.00	42.26
ATOM	6131	OD1	ASN	B	51	63.738	50.571	81.293	1.00	46.59
ATOM	6132	ND2	ASN	B	51	65.079	51.081	79.569	1.00	42.03
ATOM	6133	N	THR	B	52	66.453	46.134	80.227	1.00	39.39
ATOM	6134	CA	THR	B	52	66.643	45.080	81.204	1.00	39.63
ATOM	6135	C	THR	B	52	67.329	45.541	82.496	1.00	39.19
ATOM	6136	O	THR	B	52	67.029	45.023	83.560	1.00	38.43
ATOM	6137	CB	THR	B	52	67.446	43.970	80.573	1.00	39.59
ATOM	6138	OG1	THR	B	52	66.824	43.606	79.348	1.00	40.44
ATOM	6139	CG2	THR	B	52	67.349	42.695	81.412	1.00	40.57
ATOM	6140	N	TYR	B	53	68.240	46.497	82.356	1.00	38.59
ATOM	6141	CA	TYR	B	53	68.989	47.077	83.443	1.00	38.99
ATOM	6142	C	TYR	B	53	68.498	48.514	83.663	1.00	39.15
ATOM	6143	O	TYR	B	53	68.932	49.451	82.998	1.00	39.02
ATOM	6144	CB	TYR	B	53	70.484	46.999	83.109	1.00	38.55
ATOM	6145	CG	TYR	B	53	70.948	45.564	82.960	1.00	38.41
ATOM	6146	CD1	TYR	B	53	70.925	44.687	84.034	1.00	39.45

ATOM	6147	CD2	TYR	B	53	71.368	45.067	81.733	1.00	40.02
ATOM	6148	CE1	TYR	B	53	71.337	43.341	83.885	1.00	40.17
ATOM	6149	CE2	TYR	B	53	71.769	43.737	81.580	1.00	39.74
ATOM	6150	CZ	TYR	B	53	71.749	42.889	82.650	1.00	39.48
ATOM	6151	OH	TYR	B	53	72.159	41.588	82.477	1.00	41.16
ATOM	6152	N	ARG	B	54	67.580	48.668	84.606	1.00	39.82
ATOM	6153	CA	ARG	B	54	66.880	49.929	84.811	1.00	41.09
ATOM	6154	C	ARG	B	54	67.437	50.820	85.918	1.00	39.95
ATOM	6155	O	ARG	B	54	67.650	50.345	87.042	1.00	40.34
ATOM	6156	CB	ARG	B	54	65.419	49.637	85.167	1.00	42.08
ATOM	6157	CG	ARG	B	54	64.600	49.054	84.064	1.00	48.62
ATOM	6158	CD	ARG	B	54	63.077	48.880	84.417	1.00	54.89
ATOM	6159	NE	ARG	B	54	62.411	47.906	83.531	1.00	59.33
ATOM	6160	CZ	ARG	B	54	61.659	48.219	82.463	1.00	63.36
ATOM	6161	NH1	ARG	B	54	61.460	49.488	82.109	1.00	64.50
ATOM	6162	NH2	ARG	B	54	61.103	47.254	81.736	1.00	64.31
ATOM	6163	N	LEU	B	55	67.624	52.099	85.602	1.00	38.60
ATOM	6164	CA	LEU	B	55	68.019	53.106	86.583	1.00	38.98
ATOM	6165	C	LEU	B	55	66.848	53.477	87.458	1.00	38.29
ATOM	6166	O	LEU	B	55	65.761	53.777	86.954	1.00	37.51
ATOM	6167	CB	LEU	B	55	68.541	54.365	85.898	1.00	38.96
ATOM	6168	CG	LEU	B	55	69.895	54.108	85.263	1.00	41.05
ATOM	6169	CD1	LEU	B	55	70.193	55.111	84.136	1.00	43.07
ATOM	6170	CD2	LEU	B	55	70.922	54.157	86.320	1.00	41.53
ATOM	6171	N	LYS	B	56	67.047	53.395	88.774	1.00	37.79
ATOM	6172	CA	LYS	B	56	65.993	53.746	89.732	1.00	37.45
ATOM	6173	C	LYS	B	56	66.122	55.239	90.005	1.00	36.19
ATOM	6174	O	LYS	B	56	67.226	55.745	90.142	1.00	36.81
ATOM	6175	CB	LYS	B	56	66.093	52.962	91.048	1.00	37.81
ATOM	6176	CG	LYS	B	56	65.489	51.564	91.056	1.00	40.35
ATOM	6177	CD	LYS	B	56	65.304	51.064	92.507	1.00	44.36
ATOM	6178	CE	LYS	B	56	65.245	49.527	92.650	1.00	46.29
ATOM	6179	NZ	LYS	B	56	65.354	49.015	94.089	1.00	43.46
ATOM	6180	N	LEU	B	57	64.976	55.903	90.107	1.00	34.92
ATOM	6181	CA	LEU	B	57	64.854	57.353	90.238	1.00	34.55
ATOM	6182	C	LEU	B	57	64.324	57.683	91.612	1.00	32.13
ATOM	6183	O	LEU	B	57	63.927	56.808	92.336	1.00	32.39
ATOM	6184	CB	LEU	B	57	63.815	57.886	89.209	1.00	34.23
ATOM	6185	CG	LEU	B	57	63.956	57.325	87.791	1.00	38.69
ATOM	6186	CD1	LEU	B	57	62.694	57.519	86.874	1.00	40.17
ATOM	6187	CD2	LEU	B	57	65.175	57.973	87.144	1.00	38.67
ATOM	6188	N	TYR	B	58	64.366	58.951	91.968	1.00	30.33
ATOM	6189	CA	TYR	B	58	63.645	59.437	93.133	1.00	28.99
ATOM	6190	C	TYR	B	58	63.147	60.832	92.827	1.00	28.96
ATOM	6191	O	TYR	B	58	63.755	61.816	93.195	1.00	28.57
ATOM	6192	CB	TYR	B	58	64.489	59.430	94.405	1.00	28.55
ATOM	6193	CG	TYR	B	58	63.678	59.376	95.687	1.00	26.14
ATOM	6194	CD1	TYR	B	58	63.157	60.541	96.221	1.00	26.40
ATOM	6195	CD2	TYR	B	58	63.436	58.166	96.362	1.00	25.89
ATOM	6196	CE1	TYR	B	58	62.428	60.550	97.356	1.00	25.05
ATOM	6197	CE2	TYR	B	58	62.668	58.141	97.571	1.00	24.22
ATOM	6198	CZ	TYR	B	58	62.169	59.359	98.037	1.00	27.02
ATOM	6199	OH	TYR	B	58	61.443	59.503	99.176	1.00	27.44
ATOM	6200	N	SER	B	59	62.014	60.891	92.154	1.00	28.77
ATOM	6201	CA	SER	B	59	61.351	62.127	91.819	1.00	28.72
ATOM	6202	C	SER	B	59	60.397	62.561	92.896	1.00	28.49
ATOM	6203	O	SER	B	59	59.401	61.897	93.153	1.00	27.25
ATOM	6204	CB	SER	B	59	60.541	61.917	90.537	1.00	29.06
ATOM	6205	OG	SER	B	59	61.360	61.214	89.608	1.00	31.54
ATOM	6206	N	LEU	B	60	60.662	63.723	93.479	1.00	28.81
ATOM	6207	CA	LEU	B	60	59.803	64.224	94.518	1.00	29.07
ATOM	6208	C	LEU	B	60	59.311	65.609	94.189	1.00	30.02
ATOM	6209	O	LEU	B	60	59.855	66.219	93.299	1.00	29.55
ATOM	6210	CB	LEU	B	60	60.532	64.214	95.864	1.00	28.50
ATOM	6211	CG	LEU	B	60	61.605	65.189	96.362	1.00	29.47
ATOM	6212	CD1	LEU	B	60	62.895	64.477	96.481	1.00	32.38
ATOM	6213	CD2	LEU	B	60	61.809	66.511	95.678	1.00	28.57
ATOM	6214	N	ARG	B	61	58.277	66.087	94.889	1.00	30.95
ATOM	6215	CA	ARG	B	61	57.791	67.457	94.701	1.00	32.76
ATOM	6216	C	ARG	B	61	57.674	68.106	96.066	1.00	31.69

ATOM	6217	O	ARG	B	61	56.884	67.687	96.880	1.00	32.62
ATOM	6218	CB	ARG	B	61	56.437	67.550	93.945	1.00	33.00
ATOM	6219	CG	ARG	B	61	56.301	66.653	92.722	1.00	37.71
ATOM	6220	CD	ARG	B	61	54.916	66.765	91.970	1.00	43.84
ATOM	6221	NE	ARG	B	61	54.765	65.788	90.874	1.00	46.60
ATOM	6222	CZ	ARG	B	61	53.631	65.576	90.187	1.00	48.81
ATOM	6223	NH1	ARG	B	61	52.527	66.245	90.482	1.00	50.54
ATOM	6224	NH2	ARG	B	61	53.592	64.681	89.209	1.00	49.42
ATOM	6225	N	TRP	B	62	58.489	69.106	96.305	1.00	30.71
ATOM	6226	CA	TRP	B	62	58.431	69.858	97.528	1.00	31.67
ATOM	6227	C	TRP	B	62	57.093	70.552	97.627	1.00	31.76
ATOM	6228	O	TRP	B	62	56.615	71.148	96.684	1.00	30.27
ATOM	6229	CB	TRP	B	62	59.554	70.906	97.586	1.00	30.92
ATOM	6230	CG	TRP	B	62	60.884	70.294	97.811	1.00	31.46
ATOM	6231	CD1	TRP	B	62	61.894	70.191	96.920	1.00	29.49
ATOM	6232	CD2	TRP	B	62	61.346	69.658	99.022	1.00	31.13
ATOM	6233	NE1	TRP	B	62	62.968	69.561	97.503	1.00	31.80
ATOM	6234	CE2	TRP	B	62	62.655	69.210	98.784	1.00	29.69
ATOM	6235	CE3	TRP	B	62	60.786	69.446	100.281	1.00	26.50
ATOM	6236	CZ2	TRP	B	62	63.416	68.553	99.752	1.00	31.02
ATOM	6237	CZ3	TRP	B	62	61.544	68.796	101.258	1.00	31.33
ATOM	6238	CH2	TRP	B	62	62.843	68.360	100.991	1.00	31.10
ATOM	6239	N	ILE	B	63	56.513	70.510	98.803	1.00	32.74
ATOM	6240	CA	ILE	B	63	55.209	71.110	98.987	1.00	33.71
ATOM	6241	C	ILE	B	63	55.150	72.147	100.103	1.00	33.06
ATOM	6242	O	ILE	B	63	54.101	72.746	100.340	1.00	32.38
ATOM	6243	CB	ILE	B	63	54.258	69.939	99.191	1.00	34.64
ATOM	6244	CG1	ILE	B	63	53.250	69.964	98.088	1.00	36.41
ATOM	6245	CG2	ILE	B	63	53.749	69.781	100.673	1.00	35.85
ATOM	6246	CD1	ILE	B	63	52.966	68.618	97.611	1.00	38.12
ATOM	6247	N	SER	B	64	56.282	72.344	100.773	1.00	31.88
ATOM	6248	CA	SER	B	64	56.416	73.345	101.799	1.00	32.02
ATOM	6249	C	SER	B	64	57.886	73.450	102.100	1.00	32.02
ATOM	6250	O	SER	B	64	58.678	73.007	101.290	1.00	31.20
ATOM	6251	CB	SER	B	64	55.628	72.939	103.047	1.00	32.59
ATOM	6252	OG	SER	B	64	56.135	71.745	103.603	1.00	30.59
ATOM	6253	N	ASP	B	65	58.261	74.008	103.249	1.00	33.10
ATOM	6254	CA	ASP	B	65	59.676	74.070	103.598	1.00	34.48
ATOM	6255	C	ASP	B	65	60.244	72.806	104.207	1.00	33.71
ATOM	6256	O	ASP	B	65	61.452	72.723	104.392	1.00	33.81
ATOM	6257	CB	ASP	B	65	59.967	75.243	104.542	1.00	35.30
ATOM	6258	CG	ASP	B	65	59.330	75.094	105.936	1.00	39.93
ATOM	6259	OD1	ASP	B	65	58.317	74.376	106.106	1.00	41.80
ATOM	6260	OD2	ASP	B	65	59.777	75.718	106.938	1.00	46.16
ATOM	6261	N	HIS	B	66	59.391	71.842	104.520	1.00	33.76
ATOM	6262	CA	HIS	B	66	59.865	70.641	105.209	1.00	34.50
ATOM	6263	C	HIS	B	66	59.224	69.281	104.805	1.00	33.72
ATOM	6264	O	HIS	B	66	59.443	68.274	105.458	1.00	33.16
ATOM	6265	CB	HIS	B	66	59.711	70.884	106.716	1.00	35.88
ATOM	6266	CG	HIS	B	66	58.295	70.884	107.202	1.00	38.04
ATOM	6267	ND1	HIS	B	66	57.772	69.855	107.963	1.00	45.25
ATOM	6268	CD2	HIS	B	66	57.312	71.810	107.098	1.00	43.06
ATOM	6269	CE1	HIS	B	66	56.510	70.127	108.264	1.00	46.62
ATOM	6270	NE2	HIS	B	66	56.205	71.309	107.751	1.00	46.13
ATOM	6271	N	GLU	B	67	58.439	69.283	103.730	1.00	32.69
ATOM	6272	CA	GLU	B	67	57.729	68.118	103.271	1.00	33.17
ATOM	6273	C	GLU	B	67	57.654	68.046	101.761	1.00	31.79
ATOM	6274	O	GLU	B	67	57.596	69.071	101.075	1.00	31.54
ATOM	6275	CB	GLU	B	67	56.293	68.079	103.791	1.00	33.48
ATOM	6276	CG	GLU	B	67	56.113	68.009	105.296	1.00	37.72
ATOM	6277	CD	GLU	B	67	54.656	68.234	105.672	1.00	42.22
ATOM	6278	OE1	GLU	B	67	54.164	69.349	105.378	1.00	48.76
ATOM	6279	OE2	GLU	B	67	53.997	67.321	106.228	1.00	42.33
ATOM	6280	N	TYR	B	68	57.631	66.824	101.256	1.00	30.97
ATOM	6281	CA	TYR	B	68	57.509	66.585	99.825	1.00	29.71
ATOM	6282	C	TYR	B	68	56.596	65.424	99.528	1.00	29.93
ATOM	6283	O	TYR	B	68	56.321	64.578	100.413	1.00	29.08
ATOM	6284	CB	TYR	B	68	58.873	66.327	99.185	1.00	29.52
ATOM	6285	CG	TYR	B	68	59.668	65.092	99.671	1.00	28.39
ATOM	6286	CD1	TYR	B	68	59.365	63.817	99.220	1.00	22.82

ATOM	6287	CD2	TYR	B	68	60.730	65.231	100.587	1.00	28.35
ATOM	6288	CE1	TYR	B	68	60.087	62.708	99.624	1.00	23.16
ATOM	6289	CE2	TYR	B	68	61.479	64.106	101.005	1.00	29.42
ATOM	6290	CZ	TYR	B	68	61.137	62.848	100.526	1.00	29.06
ATOM	6291	OH	TYR	B	68	61.857	61.741	100.912	1.00	26.61
ATOM	6292	N	LEU	B	69	56.127	65.381	98.281	1.00	29.92
ATOM	6293	CA	LEU	B	69	55.358	64.233	97.786	1.00	30.28
ATOM	6294	C	LEU	B	69	56.188	63.278	96.978	1.00	30.18
ATOM	6295	O	LEU	B	69	57.070	63.652	96.218	1.00	30.00
ATOM	6296	CB	LEU	B	69	54.194	64.664	96.895	1.00	30.22
ATOM	6297	CG	LEU	B	69	53.193	65.594	97.530	1.00	30.36
ATOM	6298	CD1	LEU	B	69	52.388	66.250	96.405	1.00	34.17
ATOM	6299	CD2	LEU	B	69	52.338	64.841	98.468	1.00	31.47
ATOM	6300	N	TYR	B	70	55.833	62.024	97.085	1.00	31.67
ATOM	6301	CA	TYR	B	70	56.553	60.971	96.424	1.00	33.09
ATOM	6302	C	TYR	B	70	55.561	59.866	96.272	1.00	34.91
ATOM	6303	O	TYR	B	70	54.762	59.608	97.179	1.00	35.21
ATOM	6304	CB	TYR	B	70	57.730	60.511	97.296	1.00	33.20
ATOM	6305	CG	TYR	B	70	58.487	59.371	96.681	1.00	34.09
ATOM	6306	CD1	TYR	B	70	59.342	59.571	95.613	1.00	34.32
ATOM	6307	CD2	TYR	B	70	58.333	58.088	97.159	1.00	36.48
ATOM	6308	CE1	TYR	B	70	60.027	58.518	95.043	1.00	35.68
ATOM	6309	CE2	TYR	B	70	59.017	57.035	96.607	1.00	38.59
ATOM	6310	CZ	TYR	B	70	59.859	57.251	95.554	1.00	38.10
ATOM	6311	OH	TYR	B	70	60.530	56.175	95.042	1.00	38.44
ATOM	6312	N	LYS	B	71	55.580	59.217	95.132	1.00	37.42
ATOM	6313	CA	LYS	B	71	54.665	58.132	94.922	1.00	39.82
ATOM	6314	C	LYS	B	71	55.395	56.788	95.087	1.00	41.07
ATOM	6315	O	LYS	B	71	56.472	56.572	94.523	1.00	40.84
ATOM	6316	CB	LYS	B	71	53.902	58.294	93.598	1.00	40.28
ATOM	6317	CG	LYS	B	71	54.600	57.907	92.345	1.00	43.25
ATOM	6318	CD	LYS	B	71	53.531	57.754	91.197	1.00	48.13
ATOM	6319	CE	LYS	B	71	53.486	58.966	90.240	1.00	48.89
ATOM	6320	NZ	LYS	B	71	53.741	60.292	90.932	1.00	47.42
ATOM	6321	N	GLN	B	72	54.823	55.926	95.926	1.00	42.40
ATOM	6322	CA	GLN	B	72	55.399	54.622	96.244	1.00	44.10
ATOM	6323	C	GLN	B	72	54.321	53.572	96.095	1.00	45.27
ATOM	6324	O	GLN	B	72	53.281	53.651	96.762	1.00	44.58
ATOM	6325	CB	GLN	B	72	55.910	54.632	97.691	1.00	44.50
ATOM	6326	CG	GLN	B	72	56.800	53.468	98.088	1.00	44.48
ATOM	6327	CD	GLN	B	72	57.329	53.630	99.503	1.00	44.96
ATOM	6328	OE1	GLN	B	72	56.615	53.373	100.474	1.00	43.70
ATOM	6329	NE2	GLN	B	72	58.576	54.051	99.621	1.00	45.53
ATOM	6330	N	GLU	B	73	54.569	52.601	95.211	1.00	47.20
ATOM	6331	CA	GLU	B	73	53.630	51.505	94.957	1.00	48.73
ATOM	6332	C	GLU	B	73	52.286	52.156	94.671	1.00	48.68
ATOM	6333	O	GLU	B	73	51.254	51.786	95.215	1.00	48.41
ATOM	6334	CB	GLU	B	73	53.574	50.546	96.158	1.00	49.31
ATOM	6335	CG	GLU	B	73	54.947	50.028	96.582	1.00	51.35
ATOM	6336	CD	GLU	B	73	54.871	48.833	97.530	1.00	54.65
ATOM	6337	OE1	GLU	B	73	54.276	47.787	97.142	1.00	55.54
ATOM	6338	OE2	GLU	B	73	55.408	48.943	98.663	1.00	54.55
ATOM	6339	N	ASN	B	74	52.366	53.079	93.718	1.00	49.04
ATOM	6340	CA	ASN	B	74	51.376	54.107	93.416	1.00	49.01
ATOM	6341	C	ASN	B	74	50.382	54.603	94.488	1.00	47.27
ATOM	6342	O	ASN	B	74	49.229	54.930	94.228	1.00	46.85
ATOM	6343	CB	ASN	B	74	50.854	54.005	91.978	1.00	50.33
ATOM	6344	CG	ASN	B	74	51.795	54.740	91.011	1.00	53.96
ATOM	6345	OD1	ASN	B	74	53.026	54.631	91.147	1.00	59.25
ATOM	6346	ND2	ASN	B	74	51.243	55.541	90.102	1.00	58.66
ATOM	6347	N	ASN	B	75	50.912	54.711	95.701	1.00	45.27
ATOM	6348	CA	ASN	B	75	50.285	55.498	96.736	1.00	43.89
ATOM	6349	C	ASN	B	75	50.971	56.866	96.625	1.00	42.53
ATOM	6350	O	ASN	B	75	52.152	56.948	96.357	1.00	42.77
ATOM	6351	CB	ASN	B	75	50.559	54.934	98.133	1.00	43.56
ATOM	6352	CG	ASN	B	75	49.860	53.600	98.387	1.00	42.32
ATOM	6353	OD1	ASN	B	75	48.634	53.518	98.429	1.00	38.62
ATOM	6354	ND2	ASN	B	75	50.651	52.560	98.593	1.00	43.37
ATOM	6355	N	ILE	B	76	50.231	57.940	96.807	1.00	40.69
ATOM	6356	CA	ILE	B	76	50.842	59.233	96.857	1.00	38.95

ATOM	6357	C	ILE	B	76	51.150	59.520	98.314	1.00	36.65
ATOM	6358	O	ILE	B	76	50.255	59.693	99.109	1.00	34.71
ATOM	6359	CB	ILE	B	76	49.910	60.272	96.247	1.00	39.60
ATOM	6360	CG1	ILE	B	76	49.892	60.098	94.722	1.00	40.79
ATOM	6361	CG2	ILE	B	76	50.395	61.665	96.574	1.00	40.25
ATOM	6362	CD1	ILE	B	76	49.030	61.130	94.000	1.00	43.78
ATOM	6363	N	LEU	B	77	52.433	59.560	98.653	1.00	34.92
ATOM	6364	CA	LEU	B	77	52.846	59.775	100.024	1.00	33.64
ATOM	6365	C	LEU	B	77	53.402	61.163	100.234	1.00	33.19
ATOM	6366	O	LEU	B	77	53.918	61.786	99.277	1.00	32.58
ATOM	6367	CB	LEU	B	77	53.966	58.807	100.384	1.00	33.67
ATOM	6368	CG	LEU	B	77	53.902	57.317	100.033	1.00	34.31
ATOM	6369	CD1	LEU	B	77	55.169	56.615	100.550	1.00	34.52
ATOM	6370	CD2	LEU	B	77	52.668	56.671	100.612	1.00	35.27
ATOM	6371	N	VAL	B	78	53.250	61.669	101.463	1.00	32.23
ATOM	6372	CA	VAL	B	78	54.007	62.830	101.890	1.00	32.17
ATOM	6373	C	VAL	B	78	55.108	62.367	102.840	1.00	31.20
ATOM	6374	O	VAL	B	78	54.875	61.585	103.751	1.00	30.88
ATOM	6375	CB	VAL	B	78	53.184	63.855	102.689	1.00	33.20
ATOM	6376	CG1	VAL	B	78	54.002	65.131	102.964	1.00	32.36
ATOM	6377	CG2	VAL	B	78	51.968	64.185	101.960	1.00	35.58
ATOM	6378	N	PHE	B	79	56.279	62.973	102.678	1.00	30.94
ATOM	6379	CA	PHE	B	79	57.414	62.708	103.545	1.00	30.29
ATOM	6380	C	PHE	B	79	57.793	63.902	104.376	1.00	30.36
ATOM	6381	O	PHE	B	79	57.673	65.025	103.911	1.00	30.80
ATOM	6382	CB	PHE	B	79	58.618	62.302	102.715	1.00	30.23
ATOM	6383	CG	PHE	B	79	58.592	60.885	102.308	1.00	30.96
ATOM	6384	CD1	PHE	B	79	57.732	60.454	101.311	1.00	29.15
ATOM	6385	CD2	PHE	B	79	59.397	59.937	102.960	1.00	29.20
ATOM	6386	CE1	PHE	B	79	57.723	59.120	100.964	1.00	30.10
ATOM	6387	CE2	PHE	B	79	59.382	58.639	102.614	1.00	25.52
ATOM	6388	CZ	PHE	B	79	58.554	58.211	101.632	1.00	25.12
ATOM	6389	N	ASN	B	80	58.255	63.657	105.598	1.00	29.03
ATOM	6390	CA	ASN	B	80	58.741	64.704	106.465	1.00	29.19
ATOM	6391	C	ASN	B	80	60.256	64.705	106.318	1.00	29.44
ATOM	6392	O	ASN	B	80	60.900	63.712	106.556	1.00	30.11
ATOM	6393	CB	ASN	B	80	58.296	64.431	107.898	1.00	28.74
ATOM	6394	CG	ASN	B	80	58.948	65.335	108.888	1.00	29.09
ATOM	6395	OD1	ASN	B	80	60.147	65.268	109.094	1.00	29.35
ATOM	6396	ND2	ASN	B	80	58.157	66.173	109.536	1.00	25.89
ATOM	6397	N	ALA	B	81	60.821	65.817	105.904	1.00	29.51
ATOM	6398	CA	ALA	B	81	62.222	65.853	105.590	1.00	30.69
ATOM	6399	C	ALA	B	81	63.150	65.623	106.792	1.00	30.80
ATOM	6400	O	ALA	B	81	64.079	64.840	106.699	1.00	30.60
ATOM	6401	CB	ALA	B	81	62.563	67.148	104.873	1.00	29.54
ATOM	6402	N	GLU	B	82	62.895	66.310	107.895	1.00	31.58
ATOM	6403	CA	GLU	B	82	63.749	66.231	109.069	1.00	32.74
ATOM	6404	C	GLU	B	82	63.857	64.795	109.558	1.00	32.27
ATOM	6405	O	GLU	B	82	64.960	64.303	109.744	1.00	32.51
ATOM	6406	CB	GLU	B	82	63.221	67.083	110.215	1.00	33.43
ATOM	6407	CG	GLU	B	82	64.199	67.164	111.383	1.00	36.43
ATOM	6408	CD	GLU	B	82	65.576	67.642	110.968	1.00	40.84
ATOM	6409	OE1	GLU	B	82	65.677	68.473	110.041	1.00	44.66
ATOM	6410	OE2	GLU	B	82	66.566	67.193	111.557	1.00	43.16
ATOM	6411	N	TYR	B	83	62.717	64.129	109.709	1.00	30.92
ATOM	6412	CA	TYR	B	83	62.684	62.779	110.283	1.00	30.84
ATOM	6413	C	TYR	B	83	62.452	61.596	109.367	1.00	30.26
ATOM	6414	O	TYR	B	83	62.676	60.488	109.780	1.00	29.50
ATOM	6415	CB	TYR	B	83	61.628	62.731	111.371	1.00	29.67
ATOM	6416	CG	TYR	B	83	61.864	63.793	112.364	1.00	30.76
ATOM	6417	CD1	TYR	B	83	62.976	63.736	113.187	1.00	32.90
ATOM	6418	CD2	TYR	B	83	61.007	64.870	112.488	1.00	29.61
ATOM	6419	CE1	TYR	B	83	63.228	64.728	114.126	1.00	32.38
ATOM	6420	CE2	TYR	B	83	61.244	65.857	113.414	1.00	32.14
ATOM	6421	CZ	TYR	B	83	62.379	65.786	114.221	1.00	34.48
ATOM	6422	OH	TYR	B	83	62.650	66.746	115.181	1.00	40.18
ATOM	6423	N	GLY	B	84	61.971	61.788	108.149	1.00	30.54
ATOM	6424	CA	GLY	B	84	61.819	60.641	107.255	1.00	30.76
ATOM	6425	C	GLY	B	84	60.520	59.863	107.382	1.00	30.75
ATOM	6426	O	GLY	B	84	60.257	58.998	106.549	1.00	31.47

ATOM	6427	N	ASN	B	85	59.691	60.138	108.387	1.00	31.23
ATOM	6428	CA	ASN	B	85	58.399	59.446	108.443	1.00	31.65
ATOM	6429	C	ASN	B	85	57.477	59.915	107.279	1.00	32.17
ATOM	6430	O	ASN	B	85	57.537	61.063	106.852	1.00	30.51
ATOM	6431	CB	ASN	B	85	57.699	59.607	109.803	1.00	30.47
ATOM	6432	CG	ASN	B	85	57.315	61.007	110.089	1.00	31.43
ATOM	6433	OD1	ASN	B	85	58.191	61.876	110.191	1.00	33.75
ATOM	6434	ND2	ASN	B	85	56.000	61.269	110.198	1.00	32.85
ATOM	6435	N	SER	B	86	56.628	59.017	106.810	1.00	33.47
ATOM	6436	CA	SER	B	86	55.761	59.280	105.674	1.00	35.12
ATOM	6437	C	SER	B	86	54.369	58.849	105.986	1.00	36.58
ATOM	6438	O	SER	B	86	54.146	58.032	106.877	1.00	36.15
ATOM	6439	CB	SER	B	86	56.200	58.460	104.490	1.00	35.25
ATOM	6440	OG	SER	B	86	56.483	57.165	104.932	1.00	37.10
ATOM	6441	N	SER	B	87	53.430	59.419	105.242	1.00	37.64
ATOM	6442	CA	SER	B	87	52.028	59.089	105.364	1.00	38.75
ATOM	6443	C	SER	B	87	51.394	59.084	103.977	1.00	39.14
ATOM	6444	O	SER	B	87	51.930	59.651	103.026	1.00	39.55
ATOM	6445	CB	SER	B	87	51.290	60.079	106.264	1.00	39.10
ATOM	6446	OG	SER	B	87	51.755	59.996	107.591	1.00	40.45
ATOM	6447	N	VAL	B	88	50.239	58.434	103.889	1.00	39.63
ATOM	6448	CA	VAL	B	88	49.509	58.296	102.643	1.00	40.87
ATOM	6449	C	VAL	B	88	48.643	59.539	102.386	1.00	41.23
ATOM	6450	O	VAL	B	88	47.661	59.782	103.086	1.00	40.79
ATOM	6451	CB	VAL	B	88	48.631	57.004	102.636	1.00	41.06
ATOM	6452	CG1	VAL	B	88	48.060	56.712	104.036	1.00	43.96
ATOM	6453	CG2	VAL	B	88	47.525	57.135	101.592	1.00	40.56
ATOM	6454	N	PHE	B	89	49.022	60.312	101.378	1.00	42.05
ATOM	6455	CA	PHE	B	89	48.214	61.446	100.964	1.00	43.87
ATOM	6456	C	PHE	B	89	46.989	61.027	100.161	1.00	44.21
ATOM	6457	O	PHE	B	89	45.917	61.555	100.345	1.00	43.68
ATOM	6458	CB	PHE	B	89	49.002	62.442	100.126	1.00	44.25
ATOM	6459	CG	PHE	B	89	48.279	63.735	99.959	1.00	46.62
ATOM	6460	CD1	PHE	B	89	48.319	64.690	100.960	1.00	49.83
ATOM	6461	CD2	PHE	B	89	47.494	63.967	98.849	1.00	48.66
ATOM	6462	CE1	PHE	B	89	47.617	65.874	100.831	1.00	50.73
ATOM	6463	CE2	PHE	B	89	46.785	65.136	98.725	1.00	49.25
ATOM	6464	CZ	PHE	B	89	46.848	66.088	99.719	1.00	50.32
ATOM	6465	N	LEU	B	90	47.173	60.072	99.268	1.00	45.65
ATOM	6466	CA	LEU	B	90	46.098	59.577	98.434	1.00	47.32
ATOM	6467	C	LEU	B	90	46.329	58.093	98.306	1.00	48.48
ATOM	6468	O	LEU	B	90	47.341	57.680	97.752	1.00	47.19
ATOM	6469	CB	LEU	B	90	46.192	60.220	97.050	1.00	47.51
ATOM	6470	CG	LEU	B	90	44.961	60.573	96.237	1.00	49.43
ATOM	6471	CD1	LEU	B	90	45.201	60.128	94.783	1.00	50.89
ATOM	6472	CD2	LEU	B	90	43.731	59.945	96.784	1.00	50.36
ATOM	6473	N	GLU	B	91	45.387	57.302	98.804	1.00	50.77
ATOM	6474	CA	GLU	B	91	45.523	55.845	98.815	1.00	53.33
ATOM	6475	C	GLU	B	91	45.681	55.245	97.410	1.00	54.61
ATOM	6476	O	GLU	B	91	44.958	55.617	96.503	1.00	53.67
ATOM	6477	CB	GLU	B	91	44.312	55.185	99.494	1.00	53.90
ATOM	6478	CG	GLU	B	91	43.496	56.067	100.445	1.00	56.83
ATOM	6479	CD	GLU	B	91	42.375	56.850	99.752	1.00	60.34
ATOM	6480	OE1	GLU	B	91	42.639	57.978	99.252	1.00	59.61
ATOM	6481	OE2	GLU	B	91	41.226	56.325	99.707	1.00	62.58
ATOM	6482	N	ASN	B	92	46.617	54.305	97.244	1.00	56.76
ATOM	6483	CA	ASN	B	92	46.790	53.626	95.957	1.00	58.94
ATOM	6484	C	ASN	B	92	45.440	53.196	95.373	1.00	60.58
ATOM	6485	O	ASN	B	92	45.181	53.331	94.167	1.00	60.40
ATOM	6486	CB	ASN	B	92	47.755	52.412	96.063	1.00	58.98
ATOM	6487	CG	ASN	B	92	47.259	51.311	97.022	1.00	59.52
ATOM	6488	OD1	ASN	B	92	46.362	51.542	97.840	1.00	60.59
ATOM	6489	ND2	ASN	B	92	47.817	50.094	96.897	1.00	61.81
ATOM	6490	N	SER	B	93	44.580	52.720	96.264	1.00	62.60
ATOM	6491	CA	SER	B	93	43.268	52.168	95.922	1.00	64.67
ATOM	6492	C	SER	B	93	42.282	53.169	95.329	1.00	65.69
ATOM	6493	O	SER	B	93	41.597	52.858	94.344	1.00	66.09
ATOM	6494	CB	SER	B	93	42.659	51.570	97.187	1.00	64.77
ATOM	6495	OG	SER	B	93	43.699	51.255	98.109	1.00	66.81
ATOM	6496	N	THR	B	94	42.182	54.349	95.943	1.00	66.89

ATOM	6497	CA	THR	B	94	41.285	55.377	95.440	1.00	67.90
ATOM	6498	C	THR	B	94	41.516	55.453	93.950	1.00	68.67
ATOM	6499	O	THR	B	94	42.652	55.387	93.481	1.00	68.63
ATOM	6500	CB	THR	B	94	41.571	56.749	96.064	1.00	68.14
ATOM	6501	OG1	THR	B	94	42.354	56.609	97.254	1.00	67.83
ATOM	6502	CG2	THR	B	94	40.274	57.410	96.532	1.00	68.08
ATOM	6503	N	PHE	B	95	40.430	55.583	93.207	1.00	69.89
ATOM	6504	CA	PHE	B	95	40.497	55.602	91.754	1.00	70.65
ATOM	6505	C	PHE	B	95	40.944	54.252	91.233	1.00	71.25
ATOM	6506	O	PHE	B	95	42.029	54.099	90.678	1.00	71.18
ATOM	6507	CB	PHE	B	95	41.392	56.735	91.256	1.00	70.73
ATOM	6508	CG	PHE	B	95	41.049	58.049	91.865	1.00	70.42
ATOM	6509	CD1	PHE	B	95	39.734	58.469	91.910	1.00	70.08
ATOM	6510	CD2	PHE	B	95	42.025	58.840	92.435	1.00	70.08
ATOM	6511	CE1	PHE	B	95	39.403	59.654	92.493	1.00	69.12
ATOM	6512	CE2	PHE	B	95	41.691	60.030	93.014	1.00	70.02
ATOM	6513	CZ	PHE	B	95	40.376	60.433	93.041	1.00	69.12
ATOM	6514	N	ASP	B	96	40.085	53.276	91.501	1.00	71.95
ATOM	6515	CA	ASP	B	96	40.174	51.930	90.968	1.00	72.26
ATOM	6516	C	ASP	B	96	38.920	51.861	90.104	1.00	72.48
ATOM	6517	O	ASP	B	96	38.931	51.431	88.940	1.00	72.15
ATOM	6518	CB	ASP	B	96	40.089	50.885	92.094	1.00	72.41
ATOM	6519	CG	ASP	B	96	41.452	50.303	92.491	1.00	72.76
ATOM	6520	OD1	ASP	B	96	42.461	50.610	91.830	1.00	74.22
ATOM	6521	OD2	ASP	B	96	41.606	49.509	93.450	1.00	71.03
ATOM	6522	N	GLU	B	97	37.831	52.337	90.701	1.00	72.66
ATOM	6523	CA	GLU	B	97	36.521	52.362	90.067	1.00	72.60
ATOM	6524	C	GLU	B	97	36.261	53.683	89.321	1.00	71.81
ATOM	6525	O	GLU	B	97	35.142	53.933	88.872	1.00	71.85
ATOM	6526	CB	GLU	B	97	35.486	52.159	91.167	1.00	73.02
ATOM	6527	CG	GLU	B	97	34.042	52.011	90.723	1.00	74.39
ATOM	6528	CD	GLU	B	97	33.130	51.759	91.910	1.00	76.22
ATOM	6529	OE1	GLU	B	97	33.579	52.004	93.059	1.00	76.78
ATOM	6530	OE2	GLU	B	97	31.979	51.313	91.696	1.00	76.84
ATOM	6531	N	PHE	B	98	37.294	54.518	89.175	1.00	70.65
ATOM	6532	CA	PHE	B	98	37.139	55.807	88.505	1.00	69.57
ATOM	6533	C	PHE	B	98	36.692	55.642	87.051	1.00	68.08
ATOM	6534	O	PHE	B	98	35.986	56.486	86.522	1.00	68.19
ATOM	6535	CB	PHE	B	98	38.429	56.624	88.577	1.00	69.94
ATOM	6536	CG	PHE	B	98	38.381	57.894	87.772	1.00	70.49
ATOM	6537	CD1	PHE	B	98	37.458	58.887	88.073	1.00	70.34
ATOM	6538	CD2	PHE	B	98	39.246	58.088	86.701	1.00	71.59
ATOM	6539	CE1	PHE	B	98	37.411	60.063	87.333	1.00	70.63
ATOM	6540	CE2	PHE	B	98	39.201	59.267	85.947	1.00	71.72
ATOM	6541	CZ	PHE	B	98	38.281	60.255	86.270	1.00	71.03
ATOM	6542	N	GLY	B	99	37.099	54.564	86.398	1.00	66.41
ATOM	6543	CA	GLY	B	99	36.599	54.293	85.060	1.00	65.26
ATOM	6544	C	GLY	B	99	37.471	54.761	83.913	1.00	63.94
ATOM	6545	O	GLY	B	99	37.077	54.635	82.743	1.00	63.67
ATOM	6546	N	HIS	B	100	38.636	55.311	84.252	1.00	62.08
ATOM	6547	CA	HIS	B	100	39.618	55.740	83.269	1.00	60.54
ATOM	6548	C	HIS	B	100	41.006	55.611	83.858	1.00	58.93
ATOM	6549	O	HIS	B	100	41.216	55.858	85.042	1.00	58.09
ATOM	6550	CB	HIS	B	100	39.495	57.227	82.924	1.00	60.44
ATOM	6551	CG	HIS	B	100	38.131	57.681	82.520	1.00	60.43
ATOM	6552	ND1	HIS	B	100	37.367	58.516	83.309	1.00	61.86
ATOM	6553	CD2	HIS	B	100	37.435	57.506	81.373	1.00	61.34
ATOM	6554	CE1	HIS	B	100	36.236	58.795	82.682	1.00	61.63
ATOM	6555	NE2	HIS	B	100	36.252	58.195	81.505	1.00	60.88
ATOM	6556	N	SER	B	101	41.968	55.264	83.019	1.00	57.46
ATOM	6557	CA	SER	B	101	43.352	55.333	83.427	1.00	56.47
ATOM	6558	C	SER	B	101	43.620	56.813	83.736	1.00	55.22
ATOM	6559	O	SER	B	101	43.280	57.678	82.930	1.00	55.25
ATOM	6560	CB	SER	B	101	44.261	54.834	82.300	1.00	56.82
ATOM	6561	OG	SER	B	101	45.485	55.565	82.254	1.00	57.96
ATOM	6562	N	ILE	B	102	44.170	57.103	84.912	1.00	53.65
ATOM	6563	CA	ILE	B	102	44.558	58.455	85.274	1.00	52.71
ATOM	6564	C	ILE	B	102	46.024	58.646	84.939	1.00	51.90
ATOM	6565	O	ILE	B	102	46.891	57.906	85.408	1.00	51.45
ATOM	6566	CB	ILE	B	102	44.352	58.732	86.761	1.00	52.96

ATOM	6567	CG1	ILE	B	102	42.889	59.040	87.048	1.00 53.56
ATOM	6568	CG2	ILE	B	102	45.213	59.930	87.210	1.00 52.05
ATOM	6569	CD1	ILE	B	102	42.546	58.864	88.494	1.00 54.21
ATOM	6570	N	ASN	B	103	46.303	59.684	84.172	1.00 50.68
ATOM	6571	CA	ASN	B	103	47.633	59.886	83.621	1.00 50.19
ATOM	6572	C	ASN	B	103	48.569	60.727	84.493	1.00 49.33
ATOM	6573	O	ASN	B	103	49.776	60.549	84.451	1.00 48.89
ATOM	6574	CB	ASN	B	103	47.449	60.494	82.230	1.00 50.12
ATOM	6575	CG	ASN	B	103	48.722	60.915	81.606	1.00 50.68
ATOM	6576	OD1	ASN	B	103	49.186	62.042	81.864	1.00 52.56
ATOM	6577	ND2	ASN	B	103	49.272	60.106	80.721	1.00 48.56
ATOM	6578	N	ASP	B	104	48.018	61.627	85.291	1.00 48.67
ATOM	6579	CA	ASP	B	104	48.843	62.489	86.129	1.00 48.99
ATOM	6580	C	ASP	B	104	47.926	63.154	87.166	1.00 48.52
ATOM	6581	O	ASP	B	104	46.720	62.911	87.189	1.00 48.70
ATOM	6582	CB	ASP	B	104	49.593	63.515	85.258	1.00 49.21
ATOM	6583	CG	ASP	B	104	50.831	64.116	85.942	1.00 51.02
ATOM	6584	OD1	ASP	B	104	50.886	64.220	87.192	1.00 57.49
ATOM	6585	OD2	ASP	B	104	51.809	64.550	85.311	1.00 51.76
ATOM	6586	N	TYR	B	105	48.473	63.996	88.022	1.00 48.07
ATOM	6587	CA	TYR	B	105	47.669	64.584	89.072	1.00 48.29
ATOM	6588	C	TYR	B	105	48.363	65.835	89.531	1.00 47.82
ATOM	6589	O	TYR	B	105	49.553	66.008	89.297	1.00 46.92
ATOM	6590	CB	TYR	B	105	47.507	63.623	90.252	1.00 48.41
ATOM	6591	CG	TYR	B	105	48.802	63.411	90.975	1.00 50.88
ATOM	6592	CD1	TYR	B	105	49.285	64.366	91.845	1.00 53.35
ATOM	6593	CD2	TYR	B	105	49.571	62.279	90.754	1.00 53.13
ATOM	6594	CE1	TYR	B	105	50.484	64.199	92.491	1.00 54.72
ATOM	6595	CE2	TYR	B	105	50.780	62.100	91.410	1.00 54.12
ATOM	6596	CZ	TYR	B	105	51.229	63.071	92.277	1.00 54.90
ATOM	6597	OH	TYR	B	105	52.438	62.932	92.941	1.00 56.72
ATOM	6598	N	SER	B	106	47.607	66.712	90.179	1.00 47.41
ATOM	6599	CA	SER	B	106	48.154	67.975	90.634	1.00 47.19
ATOM	6600	C	SER	B	106	47.355	68.466	91.821	1.00 47.24
ATOM	6601	O	SER	B	106	46.183	68.832	91.712	1.00 46.40
ATOM	6602	CB	SER	B	106	48.134	69.020	89.533	1.00 47.09
ATOM	6603	OG	SER	B	106	48.471	70.278	90.078	1.00 47.17
ATOM	6604	N	ILE	B	107	48.030	68.507	92.955	1.00 47.54
ATOM	6605	CA	ILE	B	107	47.364	68.782	94.201	1.00 47.97
ATOM	6606	C	ILE	B	107	47.408	70.258	94.453	1.00 47.17
ATOM	6607	O	ILE	B	107	48.403	70.897	94.208	1.00 46.88
ATOM	6608	CB	ILE	B	107	48.023	67.952	95.315	1.00 48.46
ATOM	6609	CG1	ILE	B	107	48.132	66.494	94.834	1.00 50.38
ATOM	6610	CG2	ILE	B	107	47.221	68.028	96.586	1.00 48.95
ATOM	6611	CD1	ILE	B	107	48.792	65.516	95.824	1.00 51.53
ATOM	6612	N	SER	B	108	46.280	70.797	94.874	1.00 46.98
ATOM	6613	CA	SER	B	108	46.165	72.198	95.182	1.00 47.44
ATOM	6614	C	SER	B	108	47.139	72.506	96.299	1.00 47.37
ATOM	6615	O	SER	B	108	47.360	71.655	97.148	1.00 47.37
ATOM	6616	CB	SER	B	108	44.750	72.479	95.637	1.00 47.48
ATOM	6617	OG	SER	B	108	43.908	72.555	94.511	1.00 50.87
ATOM	6618	N	PRO	B	109	47.680	73.714	96.314	1.00 47.60
ATOM	6619	CA	PRO	B	109	48.726	74.098	97.270	1.00 48.07
ATOM	6620	C	PRO	B	109	48.248	74.084	98.701	1.00 48.47
ATOM	6621	O	PRO	B	109	48.884	73.537	99.582	1.00 48.42
ATOM	6622	CB	PRO	B	109	49.067	75.550	96.896	1.00 48.14
ATOM	6623	CG	PRO	B	109	48.258	75.909	95.689	1.00 48.80
ATOM	6624	CD	PRO	B	109	47.293	74.812	95.418	1.00 48.07
ATOM	6625	N	ASP	B	110	47.118	74.732	98.915	1.00 48.72
ATOM	6626	CA	ASP	B	110	46.524	74.837	100.222	1.00 48.24
ATOM	6627	C	ASP	B	110	45.494	73.728	100.067	1.00 48.77
ATOM	6628	O	ASP	B	110	44.331	73.942	99.609	1.00 49.67
ATOM	6629	CB	ASP	B	110	46.040	76.281	100.413	1.00 47.85
ATOM	6630	CG	ASP	B	110	47.234	77.315	100.391	1.00 45.51
ATOM	6631	OD1	ASP	B	110	48.375	76.906	100.255	1.00 41.05
ATOM	6632	OD2	ASP	B	110	47.150	78.556	100.515	1.00 45.53
ATOM	6633	N	GLY	B	111	46.028	72.549	100.427	1.00 48.67
ATOM	6634	CA	GLY	B	111	45.611	71.174	100.106	1.00 47.96
ATOM	6635	C	GLY	B	111	44.234	70.538	100.027	1.00 47.65
ATOM	6636	O	GLY	B	111	44.157	69.318	100.186	1.00 48.21

ATOM	6637	N	GLN	B	112	43.191	71.280	99.681	1.00 46.73
ATOM	6638	CA	GLN	B	112	41.828	70.757	99.688	1.00 46.55
ATOM	6639	C	GLN	B	112	41.368	69.958	98.453	1.00 45.92
ATOM	6640	O	GLN	B	112	40.404	69.189	98.507	1.00 45.81
ATOM	6641	CB	GLN	B	112	40.891	71.939	99.910	1.00 47.23
ATOM	6642	CG	GLN	B	112	41.335	72.836	101.085	1.00 48.40
ATOM	6643	CD	GLN	B	112	40.268	73.776	101.521	1.00 50.36
ATOM	6644	OE1	GLN	B	112	39.258	73.927	100.840	1.00 51.07
ATOM	6645	NE2	GLN	B	112	40.464	74.407	102.671	1.00 52.21
ATOM	6646	N	PHE	B	113	42.057	70.122	97.334	1.00 45.08
ATOM	6647	CA	PHE	B	113	41.642	69.458	96.113	1.00 43.72
ATOM	6648	C	PHE	B	113	42.805	68.847	95.343	1.00 42.79
ATOM	6649	O	PHE	B	113	43.958	69.219	95.512	1.00 42.89
ATOM	6650	CB	PHE	B	113	40.929	70.466	95.214	1.00 43.63
ATOM	6651	CG	PHE	B	113	39.750	71.099	95.848	1.00 42.05
ATOM	6652	CD1	PHE	B	113	38.488	70.569	95.677	1.00 42.72
ATOM	6653	CD2	PHE	B	113	39.889	72.226	96.606	1.00 39.78
ATOM	6654	CE1	PHE	B	113	37.383	71.177	96.261	1.00 42.10
ATOM	6655	CE2	PHE	B	113	38.789	72.834	97.196	1.00 40.25
ATOM	6656	CZ	PHE	B	113	37.554	72.322	97.031	1.00 41.31
ATOM	6657	N	ILE	B	114	42.487	67.880	94.505	1.00 42.17
ATOM	6658	CA	ILE	B	114	43.473	67.356	93.598	1.00 41.68
ATOM	6659	C	ILE	B	114	42.892	67.268	92.197	1.00 40.71
ATOM	6660	O	ILE	B	114	41.741	66.874	92.020	1.00 40.61
ATOM	6661	CB	ILE	B	114	43.966	65.991	94.062	1.00 41.42
ATOM	6662	CG1	ILE	B	114	45.153	65.574	93.200	1.00 41.62
ATOM	6663	CG2	ILE	B	114	42.860	64.986	93.970	1.00 41.11
ATOM	6664	CD1	ILE	B	114	45.635	64.163	93.416	1.00 42.89
ATOM	6665	N	LEU	B	115	43.715	67.599	91.201	1.00 39.94
ATOM	6666	CA	LEU	B	115	43.320	67.535	89.789	1.00 39.10
ATOM	6667	C	LEU	B	115	43.642	66.161	89.210	1.00 38.76
ATOM	6668	O	LEU	B	115	44.777	65.737	89.259	1.00 38.30
ATOM	6669	CB	LEU	B	115	44.130	68.536	89.002	1.00 39.65
ATOM	6670	CG	LEU	B	115	43.616	69.790	88.299	1.00 40.09
ATOM	6671	CD1	LEU	B	115	44.778	70.170	87.397	1.00 40.91
ATOM	6672	CD2	LEU	B	115	42.343	69.622	87.504	1.00 38.88
ATOM	6673	N	LEU	B	116	42.671	65.453	88.657	1.00 38.21
ATOM	6674	CA	LEU	B	116	42.982	64.185	88.024	1.00 38.17
ATOM	6675	C	LEU	B	116	42.968	64.422	86.527	1.00 37.63
ATOM	6676	O	LEU	B	116	41.992	64.913	85.989	1.00 37.08
ATOM	6677	CB	LEU	B	116	41.974	63.094	88.383	1.00 38.64
ATOM	6678	CG	LEU	B	116	41.649	62.939	89.858	1.00 39.18
ATOM	6679	CD1	LEU	B	116	40.900	61.664	90.069	1.00 41.25
ATOM	6680	CD2	LEU	B	116	42.905	62.919	90.652	1.00 39.01
ATOM	6681	N	GLU	B	117	44.063	64.061	85.870	1.00 37.51
ATOM	6682	CA	GLU	B	117	44.234	64.281	84.444	1.00 36.48
ATOM	6683	C	GLU	B	117	44.052	62.967	83.754	1.00 36.12
ATOM	6684	O	GLU	B	117	44.751	61.994	84.054	1.00 38.07
ATOM	6685	CB	GLU	B	117	45.649	64.823	84.205	1.00 36.68
ATOM	6686	CG	GLU	B	117	45.949	65.272	82.781	1.00 35.93
ATOM	6687	CD	GLU	B	117	47.387	65.728	82.593	1.00 35.27
ATOM	6688	OE1	GLU	B	117	48.193	64.901	82.173	1.00 37.75
ATOM	6689	OE2	GLU	B	117	47.718	66.905	82.825	1.00 36.09
ATOM	6690	N	TYR	B	118	43.138	62.902	82.817	1.00 34.75
ATOM	6691	CA	TYR	B	118	42.914	61.657	82.116	1.00 34.56
ATOM	6692	C	TYR	B	118	42.636	61.937	80.633	1.00 34.00
ATOM	6693	O	TYR	B	118	42.570	63.108	80.232	1.00 33.30
ATOM	6694	CB	TYR	B	118	41.797	60.859	82.818	1.00 34.86
ATOM	6695	CG	TYR	B	118	40.404	61.439	82.742	1.00 35.02
ATOM	6696	CD1	TYR	B	118	39.990	62.450	83.598	1.00 39.23
ATOM	6697	CD2	TYR	B	118	39.500	60.948	81.844	1.00 38.13
ATOM	6698	CE1	TYR	B	118	38.677	62.981	83.529	1.00 38.18
ATOM	6699	CE2	TYR	B	118	38.209	61.457	81.753	1.00 40.19
ATOM	6700	CZ	TYR	B	118	37.810	62.477	82.594	1.00 40.62
ATOM	6701	OH	TYR	B	118	36.538	62.959	82.462	1.00 43.07
ATOM	6702	N	ASN	B	119	42.518	60.876	79.834	1.00 34.57
ATOM	6703	CA	ASN	B	119	42.391	60.976	78.377	1.00 35.21
ATOM	6704	C	ASN	B	119	43.487	61.898	77.769	1.00 34.89
ATOM	6705	O	ASN	B	119	43.218	62.738	76.925	1.00 34.73
ATOM	6706	CB	ASN	B	119	41.029	61.548	77.987	1.00 35.70

ATOM	6707	CG	ASN	B	119	39.910	60.521	78.017	1.00	38.47
ATOM	6708	OD1	ASN	B	119	40.140	59.326	77.869	1.00	40.47
ATOM	6709	ND2	ASN	B	119	38.673	61.004	78.174	1.00	38.75
ATOM	6710	N	TYR	B	120	44.705	61.798	78.255	1.00	34.18
ATOM	6711	CA	TYR	B	120	45.789	62.576	77.705	1.00	33.43
ATOM	6712	C	TYR	B	120	46.053	62.232	76.247	1.00	32.61
ATOM	6713	O	TYR	B	120	46.092	61.059	75.884	1.00	32.29
ATOM	6714	CB	TYR	B	120	47.035	62.344	78.550	1.00	33.95
ATOM	6715	CG	TYR	B	120	48.380	62.689	77.930	1.00	35.78
ATOM	6716	CD1	TYR	B	120	48.990	61.846	77.019	1.00	37.16
ATOM	6717	CD2	TYR	B	120	49.081	63.814	78.349	1.00	37.19
ATOM	6718	CE1	TYR	B	120	50.269	62.157	76.500	1.00	40.14
ATOM	6719	CE2	TYR	B	120	50.331	64.116	77.855	1.00	38.09
ATOM	6720	CZ	TYR	B	120	50.912	63.301	76.933	1.00	39.35
ATOM	6721	OH	TYR	B	120	52.140	63.654	76.448	1.00	44.06
ATOM	6722	N	VAL	B	121	46.154	63.266	75.412	1.00	31.03
ATOM	6723	CA	VAL	B	121	46.616	63.116	74.035	1.00	30.99
ATOM	6724	C	VAL	B	121	47.685	64.176	73.750	1.00	29.59
ATOM	6725	O	VAL	B	121	47.482	65.377	73.914	1.00	28.46
ATOM	6726	CB	VAL	B	121	45.511	63.229	73.008	1.00	30.81
ATOM	6727	CG1	VAL	B	121	46.050	62.953	71.627	1.00	33.17
ATOM	6728	CG2	VAL	B	121	44.343	62.275	73.359	1.00	33.40
ATOM	6729	N	LYS	B	122	48.829	63.701	73.312	1.00	29.19
ATOM	6730	CA	LYS	B	122	49.961	64.558	73.126	1.00	28.96
ATOM	6731	C	LYS	B	122	49.876	65.317	71.807	1.00	28.45
ATOM	6732	O	LYS	B	122	49.398	64.788	70.791	1.00	26.56
ATOM	6733	CB	LYS	B	122	51.209	63.708	73.104	1.00	28.59
ATOM	6734	CG	LYS	B	122	52.495	64.485	72.963	1.00	30.76
ATOM	6735	CD	LYS	B	122	53.699	63.494	72.795	1.00	34.96
ATOM	6736	CE	LYS	B	122	54.590	63.911	71.635	1.00	36.27
ATOM	6737	NZ	LYS	B	122	55.583	64.866	72.057	1.00	40.16
ATOM	6738	N	GLN	B	123	50.389	66.538	71.849	1.00	27.65
ATOM	6739	CA	GLN	B	123	50.655	67.288	70.646	1.00	28.12
ATOM	6740	C	GLN	B	123	52.187	67.360	70.450	1.00	26.97
ATOM	6741	O	GLN	B	123	52.804	66.380	70.029	1.00	25.72
ATOM	6742	CB	GLN	B	123	50.000	68.652	70.735	1.00	28.16
ATOM	6743	CG	GLN	B	123	50.059	69.399	69.435	1.00	31.73
ATOM	6744	CD	GLN	B	123	49.247	70.665	69.458	1.00	35.72
ATOM	6745	OE1	GLN	B	123	48.382	70.846	68.613	1.00	40.73
ATOM	6746	NE2	GLN	B	123	49.506	71.540	70.437	1.00	35.54
ATOM	6747	N	TRP	B	124	52.813	68.495	70.766	1.00	26.13
ATOM	6748	CA	TRP	B	124	54.250	68.615	70.569	1.00	24.86
ATOM	6749	C	TRP	B	124	55.074	68.167	71.783	1.00	25.01
ATOM	6750	O	TRP	B	124	54.705	67.197	72.495	1.00	23.66
ATOM	6751	CB	TRP	B	124	54.606	70.023	70.089	1.00	25.47
ATOM	6752	CG	TRP	B	124	53.657	70.539	69.053	1.00	24.48
ATOM	6753	CD1	TRP	B	124	52.942	71.705	69.104	1.00	24.28
ATOM	6754	CD2	TRP	B	124	53.300	69.900	67.794	1.00	24.34
ATOM	6755	NE1	TRP	B	124	52.157	71.823	67.976	1.00	25.29
ATOM	6756	CE2	TRP	B	124	52.357	70.741	67.153	1.00	23.47
ATOM	6757	CE3	TRP	B	124	53.667	68.703	67.171	1.00	21.99
ATOM	6758	CZ2	TRP	B	124	51.757	70.420	65.934	1.00	21.90
ATOM	6759	CZ3	TRP	B	124	53.076	68.371	65.936	1.00	22.42
ATOM	6760	CH2	TRP	B	124	52.144	69.250	65.326	1.00	24.29
ATOM	6761	N	ARG	B	125	56.215	68.810	72.030	1.00	24.78
ATOM	6762	CA	ARG	B	125	57.052	68.328	73.137	1.00	25.46
ATOM	6763	C	ARG	B	125	56.406	68.582	74.491	1.00	24.75
ATOM	6764	O	ARG	B	125	56.511	67.747	75.365	1.00	26.89
ATOM	6765	CB	ARG	B	125	58.429	68.947	73.085	1.00	25.96
ATOM	6766	CG	ARG	B	125	59.462	68.319	74.001	1.00	27.60
ATOM	6767	CD	ARG	B	125	60.748	69.171	74.113	1.00	28.15
ATOM	6768	NE	ARG	B	125	61.355	69.340	72.796	1.00	27.56
ATOM	6769	CZ	ARG	B	125	62.162	68.458	72.220	1.00	28.92
ATOM	6770	NH1	ARG	B	125	62.483	67.339	72.840	1.00	30.57
ATOM	6771	NH2	ARG	B	125	62.676	68.704	71.017	1.00	29.52
ATOM	6772	N	HIS	B	126	55.721	69.706	74.665	1.00	24.36
ATOM	6773	CA	HIS	B	126	55.100	70.043	75.958	1.00	24.50
ATOM	6774	C	HIS	B	126	53.593	70.130	75.879	1.00	24.67
ATOM	6775	O	HIS	B	126	52.905	69.909	76.857	1.00	25.37
ATOM	6776	CB	HIS	B	126	55.651	71.374	76.453	1.00	24.85

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ATOM   6777  CG  HIS B 126      57.160  71.401  76.540  1.00 25.08
ATOM   6778  ND1 HIS B 126      57.956  72.073  75.629  1.00 27.14
ATOM   6779  CD2 HIS B 126      58.009  70.775  77.387  1.00 23.78
ATOM   6780  CE1 HIS B 126      59.227  71.897  75.944  1.00 24.80
ATOM   6781  NE2 HIS B 126      59.288  71.117  77.012  1.00 25.23
ATOM   6782  N   SER B 127      53.066  70.394  74.693  1.00 24.40
ATOM   6783  CA  SER B 127      51.658  70.631  74.553  1.00 24.97
ATOM   6784  C   SER B 127      50.885  69.340  74.516  1.00 25.44
ATOM   6785  O   SER B 127      51.376  68.316  74.076  1.00 25.17
ATOM   6786  CB  SER B 127      51.363  71.440  73.292  1.00 24.87
ATOM   6787  OG  SER B 127      52.058  70.913  72.165  1.00 22.76
ATOM   6788  N   TYR B 128      49.674  69.409  75.033  1.00 27.02
ATOM   6789  CA  TYR B 128      48.758  68.291  74.979  1.00 28.11
ATOM   6790  C   TYR B 128      47.368  68.716  75.343  1.00 28.88
ATOM   6791  O   TYR B 128      47.150  69.827  75.838  1.00 28.25
ATOM   6792  CB  TYR B 128      49.187  67.168  75.907  1.00 28.22
ATOM   6793  CG  TYR B 128      49.269  67.458  77.380  1.00 30.06
ATOM   6794  CD1 TYR B 128      48.140  67.288  78.201  1.00 31.72
ATOM   6795  CD2 TYR B 128      50.484  67.806  77.991  1.00 29.65
ATOM   6796  CE1 TYR B 128      48.212  67.504  79.598  1.00 31.79
ATOM   6797  CE2 TYR B 128      50.567  68.014  79.381  1.00 29.51
ATOM   6798  CZ  TYR B 128      49.422  67.842  80.174  1.00 32.28
ATOM   6799  OH  TYR B 128      49.443  68.027  81.543  1.00 34.81
ATOM   6800  N   THR B 129      46.442  67.791  75.112  1.00 29.01
ATOM   6801  CA  THR B 129      45.074  67.959  75.497  1.00 29.49
ATOM   6802  C   THR B 129      44.674  66.844  76.495  1.00 29.76
ATOM   6803  O   THR B 129      45.150  65.703  76.423  1.00 29.04
ATOM   6804  CB  THR B 129      44.217  67.955  74.205  1.00 29.44
ATOM   6805  OG1 THR B 129      42.934  68.470  74.494  1.00 35.43
ATOM   6806  CG2 THR B 129      43.907  66.606  73.732  1.00 28.93
ATOM   6807  N   ALA B 130      43.812  67.195  77.440  1.00 30.39
ATOM   6808  CA  ALA B 130      43.297  66.238  78.387  1.00 30.28
ATOM   6809  C   ALA B 130      41.922  66.613  78.895  1.00 31.10
ATOM   6810  O   ALA B 130      41.466  67.759  78.766  1.00 30.80
ATOM   6811  CB  ALA B 130      44.253  66.136  79.585  1.00 30.74
ATOM   6812  N   SER B 131      41.282  65.620  79.517  1.00 31.93
ATOM   6813  CA  SER B 131      40.089  65.826  80.321  1.00 31.96
ATOM   6814  C   SER B 131      40.512  65.949  81.790  1.00 31.93
ATOM   6815  O   SER B 131      41.546  65.445  82.162  1.00 32.28
ATOM   6816  CB  SER B 131      39.171  64.654  80.145  1.00 31.92
ATOM   6817  OG  SER B 131      38.721  64.642  78.807  1.00 34.06
ATOM   6818  N   TYR B 132      39.713  66.602  82.632  1.00 31.99
ATOM   6819  CA  TYR B 132      40.099  66.805  84.018  1.00 32.05
ATOM   6820  C   TYR B 132      38.923  66.642  84.977  1.00 32.91
ATOM   6821  O   TYR B 132      37.862  67.210  84.772  1.00 31.84
ATOM   6822  CB  TYR B 132      40.716  68.214  84.203  1.00 31.57
ATOM   6823  CG  TYR B 132      42.069  68.361  83.561  1.00 32.18
ATOM   6824  CD1 TYR B 132      43.234  67.880  84.184  1.00 32.14
ATOM   6825  CD2 TYR B 132      42.192  68.925  82.304  1.00 31.54
ATOM   6826  CE1 TYR B 132      44.496  67.990  83.547  1.00 33.68
ATOM   6827  CE2 TYR B 132      43.426  69.018  81.666  1.00 33.56
ATOM   6828  CZ  TYR B 132      44.561  68.561  82.290  1.00 32.85
ATOM   6829  OH  TYR B 132      45.734  68.690  81.622  1.00 34.63
ATOM   6830  N   ASP B 133      39.121  65.872  86.033  1.00 35.04
ATOM   6831  CA  ASP B 133      38.138  65.818  87.102  1.00 37.05
ATOM   6832  C   ASP B 133      38.750  66.493  88.306  1.00 38.09
ATOM   6833  O   ASP B 133      39.942  66.770  88.326  1.00 38.74
ATOM   6834  CB  ASP B 133      37.676  64.392  87.368  1.00 36.73
ATOM   6835  CG  ASP B 133      36.605  63.965  86.384  1.00 38.46
ATOM   6836  OD1 ASP B 133      35.733  64.824  86.085  1.00 38.84
ATOM   6837  OD2 ASP B 133      36.548  62.827  85.843  1.00 38.67
ATOM   6838  N   ILE B 134      37.945  66.837  89.285  1.00 39.69
ATOM   6839  CA  ILE B 134      38.499  67.440  90.495  1.00 41.09
ATOM   6840  C   ILE B 134      37.970  66.675  91.691  1.00 43.16
ATOM   6841  O   ILE B 134      36.779  66.539  91.832  1.00 42.96
ATOM   6842  CB  ILE B 134      38.134  68.914  90.615  1.00 40.24
ATOM   6843  CG1 ILE B 134      38.732  69.685  89.449  1.00 39.46
ATOM   6844  CG2 ILE B 134      38.650  69.461  91.936  1.00 39.97
ATOM   6845  CD1 ILE B 134      38.549  71.149  89.505  1.00 37.38
ATOM   6846  N   TYR B 135      38.867  66.176  92.542  1.00 45.80
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ATOM	6847	CA	TYR	B	135	38.485	65.374	93.714	1.00 48.11
ATOM	6848	C	TYR	B	135	38.604	66.198	94.974	1.00 49.00
ATOM	6849	O	TYR	B	135	39.683	66.653	95.292	1.00 48.31
ATOM	6850	CB	TYR	B	135	39.408	64.156	93.819	1.00 48.71
ATOM	6851	CG	TYR	B	135	39.033	63.134	94.873	1.00 50.93
ATOM	6852	CD1	TYR	B	135	39.611	63.179	96.136	1.00 52.94
ATOM	6853	CD2	TYR	B	135	38.140	62.097	94.589	1.00 52.34
ATOM	6854	CE1	TYR	B	135	39.293	62.249	97.101	1.00 55.03
ATOM	6855	CE2	TYR	B	135	37.821	61.140	95.551	1.00 53.21
ATOM	6856	CZ	TYR	B	135	38.403	61.227	96.808	1.00 54.72
ATOM	6857	OH	TYR	B	135	38.106	60.319	97.796	1.00 54.58
ATOM	6858	N	ASP	B	136	37.474	66.416	95.648	1.00 51.11
ATOM	6859	CA	ASP	B	136	37.415	67.122	96.932	1.00 52.49
ATOM	6860	C	ASP	B	136	37.934	66.142	97.945	1.00 53.83
ATOM	6861	O	ASP	B	136	37.364	65.080	98.100	1.00 53.57
ATOM	6862	CB	ASP	B	136	35.962	67.442	97.290	1.00 52.71
ATOM	6863	CG	ASP	B	136	35.830	68.308	98.530	1.00 51.80
ATOM	6864	OD1	ASP	B	136	36.742	68.293	99.384	1.00 49.25
ATOM	6865	OD2	ASP	B	136	34.829	69.044	98.718	1.00 51.13
ATOM	6866	N	LEU	B	137	39.018	66.483	98.623	1.00 55.57
ATOM	6867	CA	LEU	B	137	39.616	65.553	99.557	1.00 57.54
ATOM	6868	C	LEU	B	137	38.884	65.516	100.917	1.00 59.20
ATOM	6869	O	LEU	B	137	38.734	64.447	101.491	1.00 59.25
ATOM	6870	CB	LEU	B	137	41.112	65.852	99.718	1.00 57.29
ATOM	6871	CG	LEU	B	137	41.972	65.236	98.612	1.00 58.13
ATOM	6872	CD1	LEU	B	137	43.199	66.071	98.305	1.00 58.23
ATOM	6873	CD2	LEU	B	137	42.363	63.813	98.978	1.00 58.48
ATOM	6874	N	ASN	B	138	38.422	66.666	101.415	1.00 60.98
ATOM	6875	CA	ASN	B	138	37.721	66.714	102.705	1.00 62.32
ATOM	6876	C	ASN	B	138	36.383	65.993	102.627	1.00 63.17
ATOM	6877	O	ASN	B	138	35.557	66.058	103.543	1.00 63.85
ATOM	6878	CB	ASN	B	138	37.535	68.169	103.185	1.00 62.59
ATOM	6879	CG	ASN	B	138	38.691	68.649	104.046	1.00 63.40
ATOM	6880	OD1	ASN	B	138	38.575	68.746	105.268	1.00 64.31
ATOM	6881	ND2	ASN	B	138	39.821	68.930	103.411	1.00 63.58
ATOM	6882	N	LYS	B	139	36.181	65.325	101.499	1.00 64.15
ATOM	6883	CA	LYS	B	139	35.023	64.493	101.266	1.00 64.69
ATOM	6884	C	LYS	B	139	35.532	63.413	100.320	1.00 65.21
ATOM	6885	O	LYS	B	139	36.479	63.642	99.585	1.00 65.06
ATOM	6886	CB	LYS	B	139	33.922	65.299	100.590	1.00 64.96
ATOM	6887	CG	LYS	B	139	33.728	66.744	101.069	1.00 64.79
ATOM	6888	CD	LYS	B	139	32.471	67.315	100.391	1.00 65.33
ATOM	6889	CE	LYS	B	139	32.153	68.768	100.757	1.00 65.49
ATOM	6890	NZ	LYS	B	139	31.094	69.330	99.832	1.00 63.71
ATOM	6891	N	ARG	B	140	34.956	62.222	100.335	1.00 65.77
ATOM	6892	CA	ARG	B	140	35.388	61.205	99.367	1.00 66.20
ATOM	6893	C	ARG	B	140	34.682	61.468	98.038	1.00 64.94
ATOM	6894	O	ARG	B	140	34.056	60.551	97.493	1.00 65.35
ATOM	6895	CB	ARG	B	140	34.966	59.796	99.807	1.00 67.02
ATOM	6896	CG	ARG	B	140	35.718	59.136	100.971	1.00 70.61
ATOM	6897	CD	ARG	B	140	35.212	57.700	101.215	1.00 74.78
ATOM	6898	NE	ARG	B	140	35.526	57.150	102.535	1.00 78.56
ATOM	6899	CZ	ARG	B	140	36.668	56.555	102.863	1.00 81.17
ATOM	6900	NH1	ARG	B	140	37.656	56.438	101.977	1.00 82.23
ATOM	6901	NH2	ARG	B	140	36.828	56.082	104.094	1.00 81.57
ATOM	6902	N	GLN	B	141	34.756	62.688	97.508	1.00 63.09
ATOM	6903	CA	GLN	B	141	33.921	63.024	96.353	1.00 61.89
ATOM	6904	C	GLN	B	141	34.563	63.756	95.163	1.00 59.88
ATOM	6905	O	GLN	B	141	35.290	64.735	95.317	1.00 58.49
ATOM	6906	CB	GLN	B	141	32.731	63.889	96.821	1.00 62.00
ATOM	6907	CG	GLN	B	141	31.581	63.186	97.546	1.00 63.58
ATOM	6908	CD	GLN	B	141	30.365	64.125	97.737	1.00 65.48
ATOM	6909	OE1	GLN	B	141	30.518	65.355	97.718	1.00 66.14
ATOM	6910	NE2	GLN	B	141	29.172	63.548	97.909	1.00 64.71
ATOM	6911	N	LEU	B	142	34.226	63.276	93.970	1.00 58.41
ATOM	6912	CA	LEU	B	142	34.549	63.956	92.724	1.00 57.40
ATOM	6913	C	LEU	B	142	33.516	65.075	92.566	1.00 56.15
ATOM	6914	O	LEU	B	142	32.351	64.887	92.903	1.00 55.20
ATOM	6915	CB	LEU	B	142	34.439	62.983	91.546	1.00 57.42
ATOM	6916	CG	LEU	B	142	35.432	61.806	91.423	1.00 58.38

ATOM	6917	CD1	LEU	B	142	34.881	60.708	90.505	1.00	58.70
ATOM	6918	CD2	LEU	B	142	36.823	62.241	90.928	1.00	57.90
ATOM	6919	N	ILE	B	143	33.910	66.251	92.096	1.00	54.79
ATOM	6920	CA	ILE	B	143	32.892	67.270	91.892	1.00	54.52
ATOM	6921	C	ILE	B	143	32.236	66.971	90.554	1.00	53.58
ATOM	6922	O	ILE	B	143	32.897	66.682	89.568	1.00	53.27
ATOM	6923	CB	ILE	B	143	33.420	68.714	91.929	1.00	54.74
ATOM	6924	CG1	ILE	B	143	33.846	69.140	90.543	1.00	55.65
ATOM	6925	CG2	ILE	B	143	34.528	68.876	92.987	1.00	54.99
ATOM	6926	CD1	ILE	B	143	33.652	70.604	90.273	1.00	56.96
ATOM	6927	N	THR	B	144	30.922	67.044	90.547	1.00	52.14
ATOM	6928	CA	THR	B	144	30.130	66.662	89.410	1.00	51.43
ATOM	6929	C	THR	B	144	29.588	67.855	88.608	1.00	49.50
ATOM	6930	O	THR	B	144	29.032	67.663	87.546	1.00	49.43
ATOM	6931	CB	THR	B	144	28.989	65.746	89.966	1.00	51.93
ATOM	6932	OG1	THR	B	144	29.462	64.382	90.017	1.00	52.78
ATOM	6933	CG2	THR	B	144	27.758	65.689	89.053	1.00	53.08
ATOM	6934	N	GLU	B	145	29.791	69.075	89.099	1.00	47.72
ATOM	6935	CA	GLU	B	145	29.212	70.284	88.490	1.00	46.86
ATOM	6936	C	GLU	B	145	30.290	71.195	87.943	1.00	44.59
ATOM	6937	O	GLU	B	145	31.366	71.145	88.421	1.00	42.44
ATOM	6938	CB	GLU	B	145	28.497	71.160	89.547	1.00	46.71
ATOM	6939	CG	GLU	B	145	27.623	70.473	90.570	1.00	48.46
ATOM	6940	CD	GLU	B	145	26.846	71.497	91.401	1.00	50.31
ATOM	6941	OE1	GLU	B	145	26.968	71.449	92.665	1.00	52.18
ATOM	6942	OE2	GLU	B	145	26.156	72.368	90.784	1.00	46.09
ATOM	6943	N	GLU	B	146	29.958	72.075	86.998	1.00	43.57
ATOM	6944	CA	GLU	B	146	30.931	73.056	86.481	1.00	42.81
ATOM	6945	C	GLU	B	146	32.323	72.410	86.287	1.00	40.46
ATOM	6946	O	GLU	B	146	33.315	72.856	86.852	1.00	39.08
ATOM	6947	CB	GLU	B	146	31.052	74.245	87.454	1.00	43.05
ATOM	6948	CG	GLU	B	146	29.723	74.917	87.818	1.00	45.72
ATOM	6949	CD	GLU	B	146	28.904	75.360	86.627	1.00	46.80
ATOM	6950	OE1	GLU	B	146	29.471	75.547	85.539	1.00	47.90
ATOM	6951	OE2	GLU	B	146	27.679	75.521	86.775	1.00	48.73
ATOM	6952	N	ARG	B	147	32.359	71.331	85.531	1.00	38.23
ATOM	6953	CA	ARG	B	147	33.580	70.611	85.318	1.00	37.89
ATOM	6954	C	ARG	B	147	34.416	71.336	84.280	1.00	35.94
ATOM	6955	O	ARG	B	147	33.909	71.963	83.342	1.00	36.10
ATOM	6956	CB	ARG	B	147	33.302	69.182	84.821	1.00	38.26
ATOM	6957	CG	ARG	B	147	32.877	68.097	85.866	1.00	40.91
ATOM	6958	CD	ARG	B	147	32.619	66.719	85.170	1.00	46.23
ATOM	6959	NE	ARG	B	147	31.968	65.683	85.989	1.00	50.43
ATOM	6960	CZ	ARG	B	147	32.447	64.445	86.217	1.00	53.41
ATOM	6961	NH1	ARG	B	147	33.618	64.053	85.735	1.00	53.39
ATOM	6962	NH2	ARG	B	147	31.756	63.590	86.967	1.00	55.20
ATOM	6963	N	ILE	B	148	35.717	71.220	84.456	1.00	33.99
ATOM	6964	CA	ILE	B	148	36.693	71.657	83.471	1.00	31.85
ATOM	6965	C	ILE	B	148	36.340	70.859	82.218	1.00	30.03
ATOM	6966	O	ILE	B	148	36.159	69.669	82.298	1.00	28.67
ATOM	6967	CB	ILE	B	148	38.094	71.286	84.013	1.00	31.92
ATOM	6968	CG1	ILE	B	148	38.473	72.268	85.147	1.00	34.33
ATOM	6969	CG2	ILE	B	148	39.125	71.286	82.935	1.00	30.99
ATOM	6970	CD1	ILE	B	148	39.951	72.101	85.737	1.00	34.47
ATOM	6971	N	PRO	B	149	36.240	71.484	81.062	1.00	28.84
ATOM	6972	CA	PRO	B	149	35.799	70.742	79.884	1.00	28.65
ATOM	6973	C	PRO	B	149	36.804	69.738	79.409	1.00	28.89
ATOM	6974	O	PRO	B	149	37.980	69.796	79.776	1.00	28.38
ATOM	6975	CB	PRO	B	149	35.601	71.820	78.802	1.00	28.36
ATOM	6976	CG	PRO	B	149	36.146	73.067	79.323	1.00	28.39
ATOM	6977	CD	PRO	B	149	36.544	72.892	80.760	1.00	29.09
ATOM	6978	N	ASN	B	150	36.318	68.799	78.614	1.00	29.51
ATOM	6979	CA	ASN	B	150	37.173	67.878	77.874	1.00	30.82
ATOM	6980	C	ASN	B	150	38.036	68.676	76.857	1.00	30.13
ATOM	6981	O	ASN	B	150	37.696	69.805	76.516	1.00	29.44
ATOM	6982	CB	ASN	B	150	36.281	66.855	77.146	1.00	31.55
ATOM	6983	CG	ASN	B	150	35.515	65.954	78.114	1.00	37.05
ATOM	6984	OD1	ASN	B	150	35.879	65.831	79.298	1.00	36.83
ATOM	6985	ND2	ASN	B	150	34.467	65.304	77.616	1.00	45.68
ATOM	6986	N	ASN	B	151	39.132	68.089	76.368	1.00	30.36

ATOM	6987	CA	ASN	B	151	40.029	68.784	75.425	1.00 30.63
ATOM	6988	C	ASN	B	151	40.568	70.080	76.006	1.00 29.87
ATOM	6989	O	ASN	B	151	40.780	71.032	75.268	1.00 30.45
ATOM	6990	CB	ASN	B	151	39.323	69.140	74.095	1.00 31.24
ATOM	6991	CG	ASN	B	151	38.597	67.942	73.466	1.00 33.32
ATOM	6992	OD1	ASN	B	151	39.228	66.989	73.033	1.00 38.87
ATOM	6993	ND2	ASN	B	151	37.277	67.986	73.435	1.00 33.94
ATOM	6994	N	THR	B	152	40.734	70.156	77.323	1.00 28.47
ATOM	6995	CA	THR	B	152	41.344	71.333	77.906	1.00 27.81
ATOM	6996	C	THR	B	152	42.811	71.275	77.522	1.00 27.45
ATOM	6997	O	THR	B	152	43.376	70.198	77.451	1.00 27.18
ATOM	6998	CB	THR	B	152	41.106	71.365	79.391	1.00 27.63
ATOM	6999	OG1	THR	B	152	39.765	71.824	79.629	1.00 30.57
ATOM	7000	CG2	THR	B	152	41.952	72.360	80.087	1.00 27.37
ATOM	7001	N	GLN	B	153	43.381	72.439	77.232	1.00 27.50
ATOM	7002	CA	GLN	B	153	44.743	72.586	76.699	1.00 27.91
ATOM	7003	C	GLN	B	153	45.821	72.836	77.764	1.00 28.03
ATOM	7004	O	GLN	B	153	46.979	72.527	77.573	1.00 27.08
ATOM	7005	CB	GLN	B	153	44.750	73.743	75.686	1.00 27.94
ATOM	7006	CG	GLN	B	153	44.107	73.436	74.316	1.00 26.46
ATOM	7007	CD	GLN	B	153	43.694	74.713	73.587	1.00 27.80
ATOM	7008	OE1	GLN	B	153	42.905	75.503	74.125	1.00 28.54
ATOM	7009	NE2	GLN	B	153	44.242	74.941	72.398	1.00 25.93
ATOM	7010	N	TRP	B	154	45.430	73.462	78.862	1.00 28.53
ATOM	7011	CA	TRP	B	154	46.316	73.658	79.961	1.00 28.10
ATOM	7012	C	TRP	B	154	45.476	73.969	81.180	1.00 28.08
ATOM	7013	O	TRP	B	154	44.400	74.514	81.035	1.00 26.97
ATOM	7014	CB	TRP	B	154	47.285	74.803	79.670	1.00 29.09
ATOM	7015	CG	TRP	B	154	48.174	75.032	80.832	1.00 30.42
ATOM	7016	CD1	TRP	B	154	48.067	76.007	81.758	1.00 34.21
ATOM	7017	CD2	TRP	B	154	49.260	74.221	81.218	1.00 29.80
ATOM	7018	NE1	TRP	B	154	49.043	75.865	82.711	1.00 34.81
ATOM	7019	CE2	TRP	B	154	49.794	74.765	82.399	1.00 33.62
ATOM	7020	CE3	TRP	B	154	49.849	73.080	80.677	1.00 31.67
ATOM	7021	CZ2	TRP	B	154	50.901	74.211	83.065	1.00 33.57
ATOM	7022	CZ3	TRP	B	154	50.963	72.530	81.329	1.00 33.77
ATOM	7023	CH2	TRP	B	154	51.468	73.100	82.511	1.00 35.86
ATOM	7024	N	VAL	B	155	45.944	73.584	82.372	1.00 27.30
ATOM	7025	CA	VAL	B	155	45.295	73.925	83.625	1.00 28.02
ATOM	7026	C	VAL	B	155	46.323	74.186	84.721	1.00 28.50
ATOM	7027	O	VAL	B	155	47.293	73.499	84.825	1.00 27.25
ATOM	7028	CB	VAL	B	155	44.468	72.766	84.254	1.00 28.49
ATOM	7029	CG1	VAL	B	155	43.605	73.290	85.381	1.00 27.80
ATOM	7030	CG2	VAL	B	155	43.669	72.012	83.259	1.00 29.00
ATOM	7031	N	THR	B	156	46.050	75.109	85.605	1.00 29.64
ATOM	7032	CA	THR	B	156	46.963	75.351	86.704	1.00 31.54
ATOM	7033	C	THR	B	156	46.229	75.874	87.899	1.00 31.50
ATOM	7034	O	THR	B	156	45.432	76.827	87.774	1.00 31.11
ATOM	7035	CB	THR	B	156	47.971	76.511	86.433	1.00 31.07
ATOM	7036	OG1	THR	B	156	48.561	76.429	85.136	1.00 37.41
ATOM	7037	CG2	THR	B	156	49.096	76.360	87.335	1.00 31.91
ATOM	7038	N	TRP	B	157	46.614	75.350	89.058	1.00 32.16
ATOM	7039	CA	TRP	B	157	46.212	75.919	90.344	1.00 32.69
ATOM	7040	C	TRP	B	157	46.976	77.210	90.519	1.00 33.37
ATOM	7041	O	TRP	B	157	48.056	77.340	89.997	1.00 33.68
ATOM	7042	CB	TRP	B	157	46.644	74.988	91.509	1.00 32.93
ATOM	7043	CG	TRP	B	157	45.962	73.635	91.559	1.00 30.74
ATOM	7044	CD1	TRP	B	157	46.539	72.441	91.353	1.00 28.69
ATOM	7045	CD2	TRP	B	157	44.597	73.371	91.906	1.00 28.30
ATOM	7046	NE1	TRP	B	157	45.618	71.434	91.530	1.00 31.58
ATOM	7047	CE2	TRP	B	157	44.412	71.993	91.857	1.00 29.40
ATOM	7048	CE3	TRP	B	157	43.497	74.180	92.225	1.00 34.40
ATOM	7049	CZ2	TRP	B	157	43.171	71.385	92.105	1.00 34.85
ATOM	7050	CZ3	TRP	B	157	42.268	73.581	92.485	1.00 34.99
ATOM	7051	CH2	TRP	B	157	42.117	72.194	92.423	1.00 35.01
ATOM	7052	N	SER	B	158	46.419	78.156	91.268	1.00 34.79
ATOM	7053	CA	SER	B	158	47.129	79.373	91.686	1.00 34.84
ATOM	7054	C	SER	B	158	48.159	78.893	92.697	1.00 34.81
ATOM	7055	O	SER	B	158	48.094	77.783	93.110	1.00 34.12
ATOM	7056	CB	SER	B	158	46.148	80.317	92.351	1.00 35.28

ATOM	7057	OG	SER	B	158	45.236	79.558	93.138	1.00	35.00
ATOM	7058	N	PRO	B	159	49.135	79.690	93.062	1.00	35.67
ATOM	7059	CA	PRO	B	159	50.207	79.190	93.919	1.00	36.90
ATOM	7060	C	PRO	B	159	49.799	78.909	95.352	1.00	38.17
ATOM	7061	O	PRO	B	159	50.396	78.066	96.000	1.00	39.07
ATOM	7062	CB	PRO	B	159	51.263	80.288	93.848	1.00	36.48
ATOM	7063	CG	PRO	B	159	50.882	81.140	92.744	1.00	36.04
ATOM	7064	CD	PRO	B	159	49.373	81.072	92.635	1.00	36.34
ATOM	7065	N	VAL	B	160	48.787	79.601	95.844	1.00	39.52
ATOM	7066	CA	VAL	B	160	48.314	79.362	97.192	1.00	39.85
ATOM	7067	C	VAL	B	160	46.849	79.215	96.995	1.00	39.62
ATOM	7068	O	VAL	B	160	46.318	79.748	96.043	1.00	40.31
ATOM	7069	CB	VAL	B	160	48.616	80.549	98.116	1.00	40.71
ATOM	7070	CG1	VAL	B	160	50.140	80.769	98.235	1.00	41.63
ATOM	7071	CG2	VAL	B	160	47.946	81.801	97.605	1.00	41.78
ATOM	7072	N	GLY	B	161	46.194	78.435	97.832	1.00	38.75
ATOM	7073	CA	GLY	B	161	44.758	78.307	97.765	1.00	38.17
ATOM	7074	C	GLY	B	161	44.285	77.225	96.830	1.00	37.54
ATOM	7075	O	GLY	B	161	44.794	76.100	96.821	1.00	36.68
ATOM	7076	N	HIS	B	162	43.243	77.543	96.076	1.00	36.80
ATOM	7077	CA	HIS	B	162	42.734	76.559	95.160	1.00	36.56
ATOM	7078	C	HIS	B	162	41.957	77.155	93.993	1.00	34.81
ATOM	7079	O	HIS	B	162	41.067	76.508	93.466	1.00	34.79
ATOM	7080	CB	HIS	B	162	41.902	75.554	95.938	1.00	37.14
ATOM	7081	CG	HIS	B	162	40.770	76.177	96.682	1.00	40.25
ATOM	7082	ND1	HIS	B	162	40.455	75.837	97.977	1.00	42.53
ATOM	7083	CD2	HIS	B	162	39.872	77.118	96.309	1.00	42.08
ATOM	7084	CE1	HIS	B	162	39.415	76.548	98.376	1.00	43.68
ATOM	7085	NE2	HIS	B	162	39.042	77.332	97.382	1.00	44.43
ATOM	7086	N	LYS	B	163	42.272	78.387	93.604	1.00	33.74
ATOM	7087	CA	LYS	B	163	41.727	78.953	92.370	1.00	34.09
ATOM	7088	C	LYS	B	163	42.340	78.168	91.224	1.00	32.87
ATOM	7089	O	LYS	B	163	43.407	77.657	91.394	1.00	32.77
ATOM	7090	CB	LYS	B	163	42.114	80.411	92.173	1.00	34.03
ATOM	7091	CG	LYS	B	163	41.512	81.400	93.157	1.00	34.96
ATOM	7092	CD	LYS	B	163	42.055	82.788	92.797	1.00	34.44
ATOM	7093	CE	LYS	B	163	41.737	83.843	93.846	1.00	34.13
ATOM	7094	NZ	LYS	B	163	42.162	85.145	93.358	1.00	30.81
ATOM	7095	N	LEU	B	164	41.635	78.028	90.107	1.00	32.21
ATOM	7096	CA	LEU	B	164	42.143	77.331	88.918	1.00	32.26
ATOM	7097	C	LEU	B	164	42.058	78.224	87.703	1.00	30.77
ATOM	7098	O	LEU	B	164	41.179	79.059	87.588	1.00	30.09
ATOM	7099	CB	LEU	B	164	41.308	76.107	88.570	1.00	32.35
ATOM	7100	CG	LEU	B	164	41.380	74.840	89.397	1.00	35.85
ATOM	7101	CD1	LEU	B	164	40.073	74.031	89.319	1.00	37.85
ATOM	7102	CD2	LEU	B	164	42.499	73.968	88.980	1.00	37.12
ATOM	7103	N	ALA	B	165	42.982	78.018	86.789	1.00	29.97
ATOM	7104	CA	ALA	B	165	42.969	78.719	85.527	1.00	29.70
ATOM	7105	C	ALA	B	165	43.264	77.683	84.452	1.00	29.05
ATOM	7106	O	ALA	B	165	44.157	76.845	84.621	1.00	29.22
ATOM	7107	CB	ALA	B	165	43.985	79.805	85.522	1.00	29.61
ATOM	7108	N	TYR	B	166	42.503	77.720	83.371	1.00	27.94
ATOM	7109	CA	TYR	B	166	42.702	76.775	82.286	1.00	27.80
ATOM	7110	C	TYR	B	166	42.479	77.394	80.911	1.00	27.07
ATOM	7111	O	TYR	B	166	41.950	78.492	80.773	1.00	26.60
ATOM	7112	CB	TYR	B	166	41.811	75.548	82.478	1.00	28.31
ATOM	7113	CG	TYR	B	166	40.313	75.795	82.488	1.00	28.99
ATOM	7114	CD1	TYR	B	166	39.598	75.876	81.296	1.00	31.31
ATOM	7115	CD2	TYR	B	166	39.607	75.893	83.680	1.00	30.82
ATOM	7116	CE1	TYR	B	166	38.228	76.073	81.273	1.00	31.44
ATOM	7117	CE2	TYR	B	166	38.204	76.077	83.669	1.00	33.40
ATOM	7118	CZ	TYR	B	166	37.528	76.179	82.450	1.00	31.55
ATOM	7119	OH	TYR	B	166	36.150	76.348	82.390	1.00	30.35
ATOM	7120	N	VAL	B	167	42.945	76.692	79.901	1.00	26.39
ATOM	7121	CA	VAL	B	167	42.799	77.133	78.540	1.00	26.34
ATOM	7122	C	VAL	B	167	42.038	76.045	77.759	1.00	25.99
ATOM	7123	O	VAL	B	167	42.388	74.866	77.788	1.00	25.38
ATOM	7124	CB	VAL	B	167	44.171	77.442	77.908	1.00	26.71
ATOM	7125	CG1	VAL	B	167	44.041	77.790	76.447	1.00	27.08
ATOM	7126	CG2	VAL	B	167	44.858	78.584	78.671	1.00	26.78

ATOM	7127	N	TRP	B	168	40.993	76.481	77.073	1.00 25.62
ATOM	7128	CA	TRP	B	168	40.125	75.616	76.311	1.00 26.65
ATOM	7129	C	TRP	B	168	39.689	76.403	75.089	1.00 26.23
ATOM	7130	O	TRP	B	168	39.330	77.566	75.176	1.00 25.50
ATOM	7131	CB	TRP	B	168	38.953	75.181	77.160	1.00 26.65
ATOM	7132	CG	TRP	B	168	37.956	74.299	76.417	1.00 28.92
ATOM	7133	CD1	TRP	B	168	37.991	72.940	76.290	1.00 28.41
ATOM	7134	CD2	TRP	B	168	36.758	74.723	75.782	1.00 29.22
ATOM	7135	NE1	TRP	B	168	36.886	72.499	75.599	1.00 29.45
ATOM	7136	CE2	TRP	B	168	36.106	73.570	75.287	1.00 28.79
ATOM	7137	CE3	TRP	B	168	36.154	75.962	75.588	1.00 31.73
ATOM	7138	CZ2	TRP	B	168	34.909	73.622	74.602	1.00 30.76
ATOM	7139	CZ3	TRP	B	168	34.949	76.013	74.909	1.00 31.40
ATOM	7140	CH2	TRP	B	168	34.354	74.847	74.403	1.00 31.36
ATOM	7141	N	ASN	B	169	39.801	75.765	73.938	1.00 27.78
ATOM	7142	CA	ASN	B	169	39.676	76.441	72.636	1.00 28.42
ATOM	7143	C	ASN	B	169	40.469	77.741	72.552	1.00 27.41
ATOM	7144	O	ASN	B	169	40.011	78.742	71.976	1.00 26.62
ATOM	7145	CB	ASN	B	169	38.225	76.603	72.239	1.00 29.40
ATOM	7146	CG	ASN	B	169	37.588	75.267	71.844	1.00 31.42
ATOM	7147	OD1	ASN	B	169	36.440	75.203	71.546	1.00 37.40
ATOM	7148	ND2	ASN	B	169	38.351	74.219	71.858	1.00 33.37
ATOM	7149	N	ASN	B	170	41.674	77.710	73.127	1.00 25.57
ATOM	7150	CA	ASN	B	170	42.621	78.822	73.013	1.00 25.04
ATOM	7151	C	ASN	B	170	42.273	80.047	73.808	1.00 24.12
ATOM	7152	O	ASN	B	170	42.907	81.088	73.635	1.00 23.07
ATOM	7153	CB	ASN	B	170	42.833	79.246	71.542	1.00 25.51
ATOM	7154	CG	ASN	B	170	43.671	78.250	70.742	1.00 25.77
ATOM	7155	OD1	ASN	B	170	43.598	77.047	70.953	1.00 26.32
ATOM	7156	ND2	ASN	B	170	44.494	78.766	69.848	1.00 23.45
ATOM	7157	N	ASP	B	171	41.255	79.942	74.653	1.00 24.36
ATOM	7158	CA	ASP	B	171	40.908	81.025	75.535	1.00 25.01
ATOM	7159	C	ASP	B	171	41.116	80.625	76.984	1.00 25.77
ATOM	7160	O	ASP	B	171	41.075	79.450	77.342	1.00 25.33
ATOM	7161	CB	ASP	B	171	39.461	81.451	75.322	1.00 25.44
ATOM	7162	CG	ASP	B	171	39.282	82.398	74.138	1.00 26.23
ATOM	7163	OD1	ASP	B	171	40.006	83.402	73.973	1.00 26.67
ATOM	7164	OD2	ASP	B	171	38.398	82.225	73.322	1.00 31.72
ATOM	7165	N	ILE	B	172	41.265	81.642	77.828	1.00 26.70
ATOM	7166	CA	ILE	B	172	41.503	81.463	79.254	1.00 26.99
ATOM	7167	C	ILE	B	172	40.224	81.567	80.042	1.00 27.13
ATOM	7168	O	ILE	B	172	39.430	82.447	79.780	1.00 28.16
ATOM	7169	CB	ILE	B	172	42.443	82.577	79.733	1.00 27.38
ATOM	7170	CG1	ILE	B	172	43.694	82.571	78.891	1.00 26.31
ATOM	7171	CG2	ILE	B	172	42.748	82.479	81.268	1.00 27.37
ATOM	7172	CD1	ILE	B	172	44.628	83.682	79.203	1.00 28.62
ATOM	7173	N	TYR	B	173	40.053	80.672	81.002	1.00 27.60
ATOM	7174	CA	TYR	B	173	38.939	80.689	81.944	1.00 29.16
ATOM	7175	C	TYR	B	173	39.487	80.600	83.336	1.00 29.79
ATOM	7176	O	TYR	B	173	40.559	80.022	83.545	1.00 27.70
ATOM	7177	CB	TYR	B	173	38.030	79.479	81.753	1.00 29.36
ATOM	7178	CG	TYR	B	173	37.340	79.485	80.431	1.00 29.61
ATOM	7179	CD1	TYR	B	173	38.031	79.156	79.289	1.00 29.96
ATOM	7180	CD2	TYR	B	173	36.007	79.862	80.321	1.00 30.68
ATOM	7181	CE1	TYR	B	173	37.417	79.173	78.037	1.00 31.87
ATOM	7182	CE2	TYR	B	173	35.357	79.866	79.070	1.00 30.15
ATOM	7183	CZ	TYR	B	173	36.081	79.514	77.935	1.00 29.94
ATOM	7184	OH	TYR	B	173	35.514	79.553	76.692	1.00 28.17
ATOM	7185	N	VAL	B	174	38.728	81.139	84.295	1.00 31.23
ATOM	7186	CA	VAL	B	174	39.111	81.074	85.697	1.00 33.00
ATOM	7187	C	VAL	B	174	37.983	80.538	86.587	1.00 34.12
ATOM	7188	O	VAL	B	174	36.816	80.912	86.412	1.00 34.28
ATOM	7189	CB	VAL	B	174	39.546	82.482	86.223	1.00 33.90
ATOM	7190	CG1	VAL	B	174	39.769	82.455	87.736	1.00 34.58
ATOM	7191	CG2	VAL	B	174	40.807	82.954	85.556	1.00 32.03
ATOM	7192	N	LYS	B	175	38.343	79.641	87.508	1.00 34.69
ATOM	7193	CA	LYS	B	175	37.430	79.108	88.522	1.00 35.51
ATOM	7194	C	LYS	B	175	37.968	79.489	89.872	1.00 36.26
ATOM	7195	O	LYS	B	175	39.108	79.152	90.204	1.00 36.45
ATOM	7196	CB	LYS	B	175	37.365	77.602	88.501	1.00 35.81

ATOM	7197	CG	LYS	B	175	36.352	77.025	87.516	1.00	38.80
ATOM	7198	CD	LYS	B	175	36.367	75.511	87.545	1.00	40.55
ATOM	7199	CE	LYS	B	175	34.990	74.962	87.372	1.00	42.69
ATOM	7200	NZ	LYS	B	175	34.425	74.585	88.683	1.00	43.10
ATOM	7201	N	ILE	B	176	37.159	80.204	90.641	1.00	37.18
ATOM	7202	CA	ILE	B	176	37.528	80.636	91.986	1.00	37.14
ATOM	7203	C	ILE	B	176	37.298	79.471	92.909	1.00	37.45
ATOM	7204	O	ILE	B	176	38.066	79.265	93.823	1.00	37.82
ATOM	7205	CB	ILE	B	176	36.680	81.832	92.399	1.00	38.10
ATOM	7206	CG1	ILE	B	176	37.003	83.028	91.494	1.00	38.17
ATOM	7207	CG2	ILE	B	176	36.865	82.178	93.913	1.00	38.95
ATOM	7208	CD1	ILE	B	176	38.466	83.421	91.501	1.00	38.95
ATOM	7209	N	GLU	B	177	36.251	78.680	92.681	1.00	37.61
ATOM	7210	CA	GLU	B	177	36.050	77.476	93.498	1.00	37.49
ATOM	7211	C	GLU	B	177	35.825	76.353	92.567	1.00	36.65
ATOM	7212	O	GLU	B	177	35.155	76.515	91.548	1.00	36.82
ATOM	7213	CB	GLU	B	177	34.821	77.561	94.427	1.00	38.49
ATOM	7214	CG	GLU	B	177	34.924	78.567	95.558	1.00	39.23
ATOM	7215	CD	GLU	B	177	36.037	78.220	96.501	1.00	41.78
ATOM	7216	OE1	GLU	B	177	36.325	77.003	96.632	1.00	41.29
ATOM	7217	OE2	GLU	B	177	36.617	79.160	97.099	1.00	42.97
ATOM	7218	N	PRO	B	178	36.378	75.208	92.899	1.00	36.33
ATOM	7219	CA	PRO	B	178	36.235	74.018	92.057	1.00	36.94
ATOM	7220	C	PRO	B	178	34.832	73.724	91.518	1.00	37.41
ATOM	7221	O	PRO	B	178	34.718	73.336	90.354	1.00	37.02
ATOM	7222	CB	PRO	B	178	36.723	72.900	92.968	1.00	36.73
ATOM	7223	CG	PRO	B	178	37.755	73.585	93.833	1.00	36.47
ATOM	7224	CD	PRO	B	178	37.212	74.954	94.079	1.00	36.06
ATOM	7225	N	ASN	B	179	33.781	73.905	92.303	1.00	38.31
ATOM	7226	CA	ASN	B	179	32.448	73.518	91.833	1.00	39.69
ATOM	7227	C	ASN	B	179	31.625	74.684	91.289	1.00	40.15
ATOM	7228	O	ASN	B	179	30.432	74.529	91.004	1.00	39.85
ATOM	7229	CB	ASN	B	179	31.676	72.810	92.942	1.00	40.15
ATOM	7230	CG	ASN	B	179	31.533	73.674	94.150	1.00	42.09
ATOM	7231	OD1	ASN	B	179	32.178	74.721	94.250	1.00	43.38
ATOM	7232	ND2	ASN	B	179	30.710	73.250	95.085	1.00	47.94
ATOM	7233	N	LEU	B	180	32.249	75.844	91.112	1.00	40.10
ATOM	7234	CA	LEU	B	180	31.520	76.966	90.547	1.00	40.56
ATOM	7235	C	LEU	B	180	31.829	77.257	89.073	1.00	39.05
ATOM	7236	O	LEU	B	180	32.855	76.849	88.543	1.00	38.39
ATOM	7237	CB	LEU	B	180	31.756	78.219	91.388	1.00	41.21
ATOM	7238	CG	LEU	B	180	30.847	78.321	92.619	1.00	45.88
ATOM	7239	CD1	LEU	B	180	29.368	77.967	92.302	1.00	48.11
ATOM	7240	CD2	LEU	B	180	31.318	77.406	93.714	1.00	49.70
ATOM	7241	N	PRO	B	181	30.898	77.926	88.410	1.00	37.96
ATOM	7242	CA	PRO	B	181	31.084	78.337	87.028	1.00	37.59
ATOM	7243	C	PRO	B	181	32.383	79.071	86.845	1.00	37.17
ATOM	7244	O	PRO	B	181	32.809	79.808	87.757	1.00	37.40
ATOM	7245	CB	PRO	B	181	29.931	79.331	86.799	1.00	37.51
ATOM	7246	CG	PRO	B	181	28.822	78.824	87.747	1.00	38.58
ATOM	7247	CD	PRO	B	181	29.563	78.287	88.921	1.00	38.00
ATOM	7248	N	SER	B	182	32.991	78.923	85.680	1.00	35.56
ATOM	7249	CA	SER	B	182	34.188	79.663	85.416	1.00	35.61
ATOM	7250	C	SER	B	182	33.842	81.037	84.885	1.00	35.09
ATOM	7251	O	SER	B	182	32.775	81.257	84.368	1.00	34.78
ATOM	7252	CB	SER	B	182	35.081	78.928	84.406	1.00	35.34
ATOM	7253	OG	SER	B	182	34.295	78.443	83.364	1.00	37.20
ATOM	7254	N	TYR	B	183	34.780	81.958	85.037	1.00	34.82
ATOM	7255	CA	TYR	B	183	34.688	83.262	84.450	1.00	34.50
ATOM	7256	C	TYR	B	183	35.520	83.177	83.193	1.00	33.68
ATOM	7257	O	TYR	B	183	36.659	82.720	83.241	1.00	33.67
ATOM	7258	CB	TYR	B	183	35.278	84.328	85.396	1.00	35.09
ATOM	7259	CG	TYR	B	183	34.510	84.382	86.676	1.00	34.39
ATOM	7260	CD1	TYR	B	183	34.860	83.564	87.718	1.00	34.06
ATOM	7261	CD2	TYR	B	183	33.369	85.201	86.807	1.00	34.61
ATOM	7262	CE1	TYR	B	183	34.154	83.556	88.869	1.00	36.35
ATOM	7263	CE2	TYR	B	183	32.648	85.219	87.973	1.00	35.36
ATOM	7264	CZ	TYR	B	183	33.040	84.377	89.003	1.00	37.94
ATOM	7265	OH	TYR	B	183	32.365	84.337	90.187	1.00	40.21
ATOM	7266	N	ARG	B	184	34.949	83.589	82.063	1.00	32.36

ATOM	7267	CA	ARG	B	184	35.686	83.605	80.804	1.00 32.58
ATOM	7268	C	ARG	B	184	36.505	84.877	80.728	1.00 31.81
ATOM	7269	O	ARG	B	184	35.964	85.932	80.829	1.00 33.62
ATOM	7270	CB	ARG	B	184	34.723	83.527	79.622	1.00 32.04
ATOM	7271	CG	ARG	B	184	35.402	83.574	78.268	1.00 33.23
ATOM	7272	CD	ARG	B	184	34.642	82.835	77.197	1.00 32.80
ATOM	7273	NE	ARG	B	184	35.371	82.777	75.937	1.00 34.26
ATOM	7274	CZ	ARG	B	184	34.838	82.391	74.773	1.00 32.66
ATOM	7275	NH1	ARG	B	184	33.574	82.000	74.699	1.00 32.08
ATOM	7276	NH2	ARG	B	184	35.573	82.370	73.698	1.00 27.82
ATOM	7277	N	ILE	B	185	37.805	84.791	80.511	1.00 31.72
ATOM	7278	CA	ILE	B	185	38.656	85.974	80.487	1.00 30.57
ATOM	7279	C	ILE	B	185	38.925	86.496	79.087	1.00 30.73
ATOM	7280	O	ILE	B	185	38.971	87.704	78.900	1.00 31.11
ATOM	7281	CB	ILE	B	185	40.019	85.616	81.148	1.00 30.53
ATOM	7282	CG1	ILE	B	185	39.806	84.939	82.501	1.00 31.03
ATOM	7283	CG2	ILE	B	185	40.951	86.815	81.252	1.00 28.61
ATOM	7284	CD1	ILE	B	185	39.150	85.829	83.580	1.00 30.91
ATOM	7285	N	THR	B	186	39.202	85.604	78.127	1.00 29.74
ATOM	7286	CA	THR	B	186	39.437	86.022	76.753	1.00 28.74
ATOM	7287	C	THR	B	186	38.360	85.490	75.845	1.00 29.54
ATOM	7288	O	THR	B	186	37.757	84.466	76.158	1.00 28.68
ATOM	7289	CB	THR	B	186	40.792	85.552	76.208	1.00 29.21
ATOM	7290	OG1	THR	B	186	40.892	84.098	76.217	1.00 24.81
ATOM	7291	CG2	THR	B	186	41.922	86.139	77.084	1.00 28.72
ATOM	7292	N	TRP	B	187	38.169	86.169	74.710	1.00 30.37
ATOM	7293	CA	TRP	B	187	37.138	85.801	73.715	1.00 31.00
ATOM	7294	C	TRP	B	187	37.680	85.721	72.313	1.00 30.96
ATOM	7295	O	TRP	B	187	36.917	85.495	71.378	1.00 31.78
ATOM	7296	CB	TRP	B	187	36.000	86.840	73.734	1.00 31.13
ATOM	7297	CG	TRP	B	187	35.306	86.910	75.049	1.00 33.04
ATOM	7298	CD1	TRP	B	187	35.733	87.586	76.161	1.00 34.11
ATOM	7299	CD2	TRP	B	187	34.077	86.271	75.420	1.00 37.07
ATOM	7300	NE1	TRP	B	187	34.841	87.400	77.191	1.00 36.25
ATOM	7301	CE2	TRP	B	187	33.816	86.600	76.757	1.00 37.19
ATOM	7302	CE3	TRP	B	187	33.173	85.440	74.756	1.00 41.52
ATOM	7303	CZ2	TRP	B	187	32.696	86.135	77.441	1.00 41.86
ATOM	7304	CZ3	TRP	B	187	32.047	84.987	75.435	1.00 41.77
ATOM	7305	CH2	TRP	B	187	31.823	85.338	76.768	1.00 42.71
ATOM	7306	N	THR	B	188	38.992	85.913	72.155	1.00 30.56
ATOM	7307	CA	THR	B	188	39.627	85.973	70.866	1.00 30.00
ATOM	7308	C	THR	B	188	40.291	84.686	70.424	1.00 30.49
ATOM	7309	O	THR	B	188	40.908	84.651	69.373	1.00 30.70
ATOM	7310	CB	THR	B	188	40.730	87.063	70.897	1.00 30.29
ATOM	7311	OG1	THR	B	188	41.580	86.859	72.032	1.00 27.37
ATOM	7312	CG2	THR	B	188	40.137	88.460	71.127	1.00 30.50
ATOM	7313	N	GLY	B	189	40.236	83.654	71.241	1.00 30.99
ATOM	7314	CA	GLY	B	189	40.882	82.406	70.897	1.00 31.24
ATOM	7315	C	GLY	B	189	40.409	81.863	69.560	1.00 32.02
ATOM	7316	O	GLY	B	189	39.223	81.866	69.272	1.00 30.37
ATOM	7317	N	LYS	B	190	41.354	81.388	68.757	1.00 33.66
ATOM	7318	CA	LYS	B	190	41.038	80.824	67.452	1.00 35.04
ATOM	7319	C	LYS	B	190	42.166	79.864	67.015	1.00 34.99
ATOM	7320	O	LYS	B	190	43.356	80.221	66.913	1.00 34.01
ATOM	7321	CB	LYS	B	190	40.775	81.942	66.429	1.00 35.38
ATOM	7322	CG	LYS	B	190	40.545	81.428	65.018	1.00 39.53
ATOM	7323	CD	LYS	B	190	39.917	82.506	64.075	1.00 44.37
ATOM	7324	CE	LYS	B	190	38.972	81.861	63.027	1.00 45.44
ATOM	7325	NZ	LYS	B	190	37.900	82.816	62.564	1.00 48.69
ATOM	7326	N	GLU	B	191	41.757	78.640	66.750	1.00 34.96
ATOM	7327	CA	GLU	B	191	42.682	77.580	66.441	1.00 35.61
ATOM	7328	C	GLU	B	191	43.711	78.047	65.399	1.00 34.46
ATOM	7329	O	GLU	B	191	43.358	78.723	64.444	1.00 33.49
ATOM	7330	CB	GLU	B	191	41.892	76.365	65.968	1.00 36.18
ATOM	7331	CG	GLU	B	191	42.602	75.042	66.131	1.00 41.19
ATOM	7332	CD	GLU	B	191	41.692	73.861	65.794	1.00 45.56
ATOM	7333	OE1	GLU	B	191	40.903	73.401	66.674	1.00 48.35
ATOM	7334	OE2	GLU	B	191	41.745	73.415	64.639	1.00 44.81
ATOM	7335	N	ASP	B	192	44.975	77.691	65.646	1.00 32.21
ATOM	7336	CA	ASP	B	192	46.138	78.031	64.851	1.00 31.35

ATOM	7337	C	ASP	B	192	46.318	79.485	64.541	1.00	29.99
ATOM	7338	O	ASP	B	192	47.166	79.810	63.752	1.00	29.26
ATOM	7339	CB	ASP	B	192	46.128	77.279	63.514	1.00	32.07
ATOM	7340	CG	ASP	B	192	45.167	75.799	63.694	1.00	33.42
ATOM	7341	OD1	ASP	B	192	45.877	75.306	64.610	1.00	36.83
ATOM	7342	OD2	ASP	B	192	45.483	75.055	62.999	1.00	34.81
ATOM	7343	N	ILE	B	193	45.587	80.375	65.181	1.00	29.66
ATOM	7344	CA	ILE	B	193	45.702	81.777	64.823	1.00	29.80
ATOM	7345	C	ILE	B	193	45.914	82.678	66.028	1.00	28.95
ATOM	7346	O	ILE	B	193	46.898	83.399	66.073	1.00	28.62
ATOM	7347	CB	ILE	B	193	44.461	82.220	64.029	1.00	30.62
ATOM	7348	CG1	ILE	B	193	44.373	81.433	62.728	1.00	32.28
ATOM	7349	CG2	ILE	B	193	44.520	83.749	63.742	1.00	33.14
ATOM	7350	CD1	ILE	B	193	43.175	81.840	61.855	1.00	36.86
ATOM	7351	N	ILE	B	194	44.987	82.671	66.983	1.00	27.43
ATOM	7352	CA	ILE	B	194	45.150	83.474	68.181	1.00	27.39
ATOM	7353	C	ILE	B	194	45.266	82.551	69.399	1.00	26.62
ATOM	7354	O	ILE	B	194	44.393	81.732	69.652	1.00	27.07
ATOM	7355	CB	ILE	B	194	43.959	84.369	68.414	1.00	27.86
ATOM	7356	CG1	ILE	B	194	43.729	85.381	67.267	1.00	27.98
ATOM	7357	CG2	ILE	B	194	44.093	85.053	69.769	1.00	29.81
ATOM	7358	CD1	ILE	B	194	44.845	86.329	66.950	1.00	28.45
ATOM	7359	N	TYR	B	195	46.318	82.722	70.182	1.00	25.71
ATOM	7360	CA	TYR	B	195	46.555	81.858	71.340	1.00	25.32
ATOM	7361	C	TYR	B	195	46.614	82.683	72.678	1.00	24.78
ATOM	7362	O	TYR	B	195	47.474	83.517	72.868	1.00	24.30
ATOM	7363	CB	TYR	B	195	47.889	81.158	71.161	1.00	25.48
ATOM	7364	CG	TYR	B	195	48.147	80.261	69.958	1.00	25.25
ATOM	7365	CD1	TYR	B	195	48.509	80.777	68.722	1.00	28.88
ATOM	7366	CD2	TYR	B	195	48.154	78.870	70.095	1.00	28.51
ATOM	7367	CE1	TYR	B	195	48.798	79.928	67.627	1.00	27.62
ATOM	7368	CE2	TYR	B	195	48.470	78.012	69.003	1.00	25.69
ATOM	7369	CZ	TYR	B	195	48.784	78.552	67.803	1.00	28.86
ATOM	7370	OH	TYR	B	195	49.089	77.704	66.769	1.00	32.98
ATOM	7371	N	ASN	B	196	45.692	82.444	73.598	1.00	24.41
ATOM	7372	CA	ASN	B	196	45.674	83.183	74.834	1.00	24.30
ATOM	7373	C	ASN	B	196	46.053	82.200	75.937	1.00	24.78
ATOM	7374	O	ASN	B	196	45.365	81.220	76.188	1.00	23.78
ATOM	7375	CB	ASN	B	196	44.295	83.796	75.145	1.00	23.89
ATOM	7376	CG	ASN	B	196	43.853	84.855	74.119	1.00	23.79
ATOM	7377	OD1	ASN	B	196	44.404	85.941	74.062	1.00	24.66
ATOM	7378	ND2	ASN	B	196	42.810	84.547	73.364	1.00	22.39
ATOM	7379	N	GLY	B	197	47.150	82.476	76.599	1.00	25.39
ATOM	7380	CA	GLY	B	197	47.525	81.669	77.745	1.00	26.17
ATOM	7381	C	GLY	B	197	48.212	80.378	77.422	1.00	25.33
ATOM	7382	O	GLY	B	197	48.519	79.637	78.356	1.00	26.86
ATOM	7383	N	ILE	B	198	48.366	80.086	76.132	1.00	24.30
ATOM	7384	CA	ILE	B	198	49.213	79.004	75.671	1.00	23.97
ATOM	7385	C	ILE	B	198	50.078	79.547	74.521	1.00	24.02
ATOM	7386	O	ILE	B	198	49.754	80.607	73.954	1.00	24.44
ATOM	7387	CB	ILE	B	198	48.418	77.790	75.190	1.00	24.16
ATOM	7388	CG1	ILE	B	198	47.310	78.236	74.222	1.00	24.52
ATOM	7389	CG2	ILE	B	198	47.891	76.975	76.389	1.00	21.53
ATOM	7390	CD1	ILE	B	198	46.528	77.132	73.499	1.00	24.60
ATOM	7391	N	THR	B	199	51.169	78.836	74.224	1.00	23.15
ATOM	7392	CA	THR	B	199	52.122	79.176	73.192	1.00	23.42
ATOM	7393	C	THR	B	199	51.810	78.461	71.870	1.00	23.55
ATOM	7394	O	THR	B	199	51.195	77.390	71.840	1.00	24.28
ATOM	7395	CB	THR	B	199	53.529	78.742	73.589	1.00	23.42
ATOM	7396	OG1	THR	B	199	53.536	77.336	73.944	1.00	22.03
ATOM	7397	CG2	THR	B	199	54.047	79.528	74.858	1.00	23.33
ATOM	7398	N	ASP	B	200	52.223	79.098	70.786	1.00	23.94
ATOM	7399	CA	ASP	B	200	52.202	78.499	69.449	1.00	24.01
ATOM	7400	C	ASP	B	200	53.425	77.600	69.345	1.00	23.87
ATOM	7401	O	ASP	B	200	54.156	77.393	70.346	1.00	23.48
ATOM	7402	CB	ASP	B	200	52.193	79.595	68.384	1.00	24.16
ATOM	7403	CG	ASP	B	200	53.550	80.189	68.127	1.00	24.91
ATOM	7404	OD1	ASP	B	200	54.429	80.171	69.033	1.00	20.58
ATOM	7405	OD2	ASP	B	200	53.835	80.661	67.004	1.00	29.25
ATOM	7406	N	TRP	B	201	53.697	77.095	68.150	1.00	23.54

ATOM	7407	CA	TRP	B	201	54.761	76.106	67.970	1.00	23.22
ATOM	7408	C	TRP	B	201	56.192	76.577	68.302	1.00	23.29
ATOM	7409	O	TRP	B	201	56.952	75.851	68.941	1.00	24.13
ATOM	7410	CB	TRP	B	201	54.770	75.533	66.543	1.00	22.81
ATOM	7411	CG	TRP	B	201	55.590	74.325	66.446	1.00	21.22
ATOM	7412	CD1	TRP	B	201	55.150	73.069	66.497	1.00	21.30
ATOM	7413	CD2	TRP	B	201	57.017	74.248	66.374	1.00	19.24
ATOM	7414	NE1	TRP	B	201	56.196	72.182	66.423	1.00	20.03
ATOM	7415	CE2	TRP	B	201	57.360	72.884	66.346	1.00	19.91
ATOM	7416	CE3	TRP	B	201	58.031	75.183	66.257	1.00	22.09
ATOM	7417	CZ2	TRP	B	201	58.672	72.429	66.245	1.00	20.94
ATOM	7418	CZ3	TRP	B	201	59.367	74.732	66.168	1.00	22.14
ATOM	7419	CH2	TRP	B	201	59.664	73.368	66.164	1.00	21.14
ATOM	7420	N	VAL	B	202	56.585	77.752	67.853	1.00	22.90
ATOM	7421	CA	VAL	B	202	57.938	78.137	68.096	1.00	23.28
ATOM	7422	C	VAL	B	202	58.149	78.500	69.531	1.00	22.71
ATOM	7423	O	VAL	B	202	59.209	78.256	70.034	1.00	21.85
ATOM	7424	CB	VAL	B	202	58.464	79.422	67.415	1.00	23.30
ATOM	7425	CG1	VAL	B	202	59.617	79.138	66.585	1.00	25.16
ATOM	7426	CG2	VAL	B	202	57.452	80.287	66.869	1.00	24.41
ATOM	7427	N	TYR	B	203	57.207	79.244	70.097	1.00	22.28
ATOM	7428	CA	TYR	B	203	57.253	79.597	71.521	1.00	22.69
ATOM	7429	C	TYR	B	203	57.235	78.382	72.441	1.00	23.05
ATOM	7430	O	TYR	B	203	57.927	78.381	73.477	1.00	23.40
ATOM	7431	CB	TYR	B	203	56.134	80.561	71.893	1.00	21.84
ATOM	7432	CG	TYR	B	203	56.503	82.031	71.761	1.00	23.10
ATOM	7433	CD1	TYR	B	203	56.306	82.719	70.585	1.00	23.62
ATOM	7434	CD2	TYR	B	203	57.086	82.726	72.836	1.00	24.96
ATOM	7435	CE1	TYR	B	203	56.674	84.078	70.473	1.00	25.42
ATOM	7436	CE2	TYR	B	203	57.466	84.042	72.728	1.00	25.18
ATOM	7437	CZ	TYR	B	203	57.239	84.720	71.559	1.00	27.71
ATOM	7438	OH	TYR	B	203	57.591	86.039	71.495	1.00	28.35
ATOM	7439	N	GLU	B	204	56.503	77.326	72.081	1.00	22.52
ATOM	7440	CA	GLU	B	204	56.475	76.160	72.952	1.00	22.72
ATOM	7441	C	GLU	B	204	57.839	75.592	72.942	1.00	23.42
ATOM	7442	O	GLU	B	204	58.439	75.359	73.972	1.00	24.10
ATOM	7443	CB	GLU	B	204	55.493	75.067	72.477	1.00	22.71
ATOM	7444	CG	GLU	B	204	55.757	73.681	73.076	1.00	21.04
ATOM	7445	CD	GLU	B	204	54.720	72.602	72.726	1.00	19.46
ATOM	7446	OE1	GLU	B	204	53.661	72.876	72.147	1.00	20.21
ATOM	7447	OE2	GLU	B	204	54.950	71.438	73.026	1.00	18.42
ATOM	7448	N	GLU	B	205	58.338	75.393	71.734	1.00	23.62
ATOM	7449	CA	GLU	B	205	59.547	74.638	71.544	1.00	23.72
ATOM	7450	C	GLU	B	205	60.834	75.418	71.788	1.00	24.81
ATOM	7451	O	GLU	B	205	61.733	74.886	72.425	1.00	23.39
ATOM	7452	CB	GLU	B	205	59.516	74.049	70.129	1.00	23.14
ATOM	7453	CG	GLU	B	205	60.709	73.231	69.668	1.00	23.21
ATOM	7454	CD	GLU	B	205	61.026	71.992	70.499	1.00	24.56
ATOM	7455	OE1	GLU	B	205	60.159	71.490	71.251	1.00	24.88
ATOM	7456	OE2	GLU	B	205	62.186	71.535	70.418	1.00	22.25
ATOM	7457	N	GLU	B	206	60.946	76.639	71.262	1.00	25.08
ATOM	7458	CA	GLU	B	206	62.201	77.361	71.344	1.00	26.18
ATOM	7459	C	GLU	B	206	62.268	78.488	72.381	1.00	27.62
ATOM	7460	O	GLU	B	206	63.314	78.744	72.938	1.00	29.23
ATOM	7461	CB	GLU	B	206	62.523	77.961	69.973	1.00	26.21
ATOM	7462	CG	GLU	B	206	62.593	76.964	68.847	1.00	27.07
ATOM	7463	CD	GLU	B	206	63.755	75.980	68.948	1.00	27.64
ATOM	7464	OE1	GLU	B	206	64.470	76.004	69.936	1.00	28.80
ATOM	7465	OE2	GLU	B	206	63.914	75.143	68.037	1.00	25.55
ATOM	7466	N	VAL	B	207	61.188	79.198	72.641	1.00	27.27
ATOM	7467	CA	VAL	B	207	61.319	80.286	73.586	1.00	27.65
ATOM	7468	C	VAL	B	207	60.983	79.914	75.030	1.00	26.94
ATOM	7469	O	VAL	B	207	61.803	80.149	75.933	1.00	25.85
ATOM	7470	CB	VAL	B	207	60.525	81.538	73.137	1.00	28.03
ATOM	7471	CG1	VAL	B	207	60.995	82.724	73.892	1.00	27.28
ATOM	7472	CG2	VAL	B	207	60.765	81.806	71.645	1.00	27.49
ATOM	7473	N	PHE	B	208	59.836	79.306	75.281	1.00	26.63
ATOM	7474	CA	PHE	B	208	59.503	79.017	76.672	1.00	26.90
ATOM	7475	C	PHE	B	208	59.844	77.614	77.116	1.00	26.57
ATOM	7476	O	PHE	B	208	59.875	77.383	78.298	1.00	25.78

ATOM	7477	CB	PHE	B	208	57.989	79.174	77.000	1.00	27.24
ATOM	7478	CG	PHE	B	208	57.488	80.562	76.986	1.00	27.03
ATOM	7479	CD1	PHE	B	208	58.328	81.623	76.747	1.00	28.32
ATOM	7480	CD2	PHE	B	208	56.145	80.800	77.176	1.00	27.44
ATOM	7481	CE1	PHE	B	208	57.823	82.921	76.700	1.00	28.05
ATOM	7482	CE2	PHE	B	208	55.633	82.068	77.118	1.00	28.17
ATOM	7483	CZ	PHE	B	208	56.482	83.138	76.888	1.00	28.67
ATOM	7484	N	SER	B	209	59.990	76.662	76.191	1.00	26.62
ATOM	7485	CA	SER	B	209	60.105	75.245	76.577	1.00	26.13
ATOM	7486	C	SER	B	209	58.900	74.899	77.448	1.00	26.36
ATOM	7487	O	SER	B	209	58.979	74.171	78.431	1.00	26.32
ATOM	7488	CB	SER	B	209	61.416	74.957	77.306	1.00	25.55
ATOM	7489	OG	SER	B	209	62.530	75.099	76.429	1.00	25.11
ATOM	7490	N	ALA	B	210	57.767	75.434	77.053	1.00	26.03
ATOM	7491	CA	ALA	B	210	56.530	75.139	77.750	1.00	27.12
ATOM	7492	C	ALA	B	210	55.368	75.586	76.863	1.00	26.75
ATOM	7493	O	ALA	B	210	55.554	76.453	75.977	1.00	26.11
ATOM	7494	CB	ALA	B	210	56.496	75.835	79.162	1.00	26.29
ATOM	7495	N	TYR	B	211	54.219	74.938	77.065	1.00	26.90
ATOM	7496	CA	TYR	B	211	52.957	75.218	76.366	1.00	27.97
ATOM	7497	C	TYR	B	211	52.230	76.354	77.033	1.00	28.34
ATOM	7498	O	TYR	B	211	51.469	77.130	76.423	1.00	27.52
ATOM	7499	CB	TYR	B	211	52.034	74.021	76.525	1.00	28.35
ATOM	7500	CG	TYR	B	211	50.822	74.005	75.605	1.00	28.82
ATOM	7501	CD1	TYR	B	211	50.772	74.750	74.417	1.00	28.38
ATOM	7502	CD2	TYR	B	211	49.740	73.223	75.910	1.00	28.18
ATOM	7503	CE1	TYR	B	211	49.648	74.707	73.595	1.00	25.00
ATOM	7504	CE2	TYR	B	211	48.642	73.164	75.092	1.00	26.81
ATOM	7505	CZ	TYR	B	211	48.594	73.903	73.951	1.00	24.68
ATOM	7506	OH	TYR	B	211	47.446	73.795	73.184	1.00	27.50
ATOM	7507	N	SER	B	212	52.473	76.413	78.330	1.00	29.04
ATOM	7508	CA	SER	B	212	51.835	77.354	79.211	1.00	29.32
ATOM	7509	C	SER	B	212	52.259	78.790	78.947	1.00	28.36
ATOM	7510	O	SER	B	212	53.408	79.068	78.695	1.00	28.30
ATOM	7511	CB	SER	B	212	52.195	76.983	80.642	1.00	29.52
ATOM	7512	OG	SER	B	212	51.407	77.736	81.521	1.00	34.46
ATOM	7513	N	ALA	B	213	51.326	79.708	79.038	1.00	28.09
ATOM	7514	CA	ALA	B	213	51.693	81.106	78.991	1.00	28.66
ATOM	7515	C	ALA	B	213	50.814	81.878	79.964	1.00	29.25
ATOM	7516	O	ALA	B	213	50.257	82.912	79.640	1.00	29.81
ATOM	7517	CB	ALA	B	213	51.579	81.627	77.605	1.00	28.39
ATOM	7518	N	LEU	B	214	50.728	81.325	81.162	1.00	30.34
ATOM	7519	CA	LEU	B	214	49.974	81.843	82.308	1.00	30.90
ATOM	7520	C	LEU	B	214	50.925	81.979	83.496	1.00	30.49
ATOM	7521	O	LEU	B	214	51.700	81.089	83.752	1.00	29.34
ATOM	7522	CB	LEU	B	214	48.948	80.788	82.727	1.00	31.14
ATOM	7523	CG	LEU	B	214	47.513	80.885	82.229	1.00	33.58
ATOM	7524	CD1	LEU	B	214	47.436	81.255	80.838	1.00	36.22
ATOM	7525	CD2	LEU	B	214	46.847	79.558	82.415	1.00	34.93
ATOM	7526	N	TRP	B	215	50.872	83.070	84.228	1.00	30.57
ATOM	7527	CA	TRP	B	215	51.706	83.193	85.419	1.00	30.30
ATOM	7528	C	TRP	B	215	50.869	83.817	86.503	1.00	30.05
ATOM	7529	O	TRP	B	215	50.581	84.989	86.471	1.00	30.63
ATOM	7530	CB	TRP	B	215	52.962	84.052	85.179	1.00	29.99
ATOM	7531	CG	TRP	B	215	53.786	83.601	84.035	1.00	31.13
ATOM	7532	CD1	TRP	B	215	54.843	82.727	84.077	1.00	32.43
ATOM	7533	CD2	TRP	B	215	53.608	83.950	82.649	1.00	29.56
ATOM	7534	NE1	TRP	B	215	55.345	82.537	82.811	1.00	32.00
ATOM	7535	CE2	TRP	B	215	54.600	83.257	81.913	1.00	31.76
ATOM	7536	CE3	TRP	B	215	52.714	84.779	81.960	1.00	26.48
ATOM	7537	CZ2	TRP	B	215	54.720	83.359	80.511	1.00	32.58
ATOM	7538	CZ3	TRP	B	215	52.810	84.873	80.562	1.00	31.02
ATOM	7539	CH2	TRP	B	215	53.820	84.172	79.854	1.00	32.58
ATOM	7540	N	TRP	B	216	50.484	83.038	87.478	1.00	30.12
ATOM	7541	CA	TRP	B	216	49.760	83.593	88.609	1.00	30.31
ATOM	7542	C	TRP	B	216	50.637	84.422	89.529	1.00	30.86
ATOM	7543	O	TRP	B	216	51.828	84.183	89.634	1.00	31.61
ATOM	7544	CB	TRP	B	216	49.214	82.478	89.461	1.00	29.58
ATOM	7545	CG	TRP	B	216	48.015	81.767	88.979	1.00	28.91
ATOM	7546	CD1	TRP	B	216	47.986	80.546	88.384	1.00	29.29

ATOM	7547	CD2	TRP	B	216	46.646	82.147	89.184	1.00 28.16
ATOM	7548	NE1	TRP	B	216	46.688	80.168	88.161	1.00 31.36
ATOM	7549	CE2	TRP	B	216	45.845	81.133	88.638	1.00 28.27
ATOM	7550	CE3	TRP	B	216	46.016	83.268	89.742	1.00 29.24
ATOM	7551	CZ2	TRP	B	216	44.457	81.193	88.627	1.00 30.27
ATOM	7552	CZ3	TRP	B	216	44.628	83.340	89.726	1.00 31.04
ATOM	7553	CH2	TRP	B	216	43.853	82.293	89.191	1.00 29.17
ATOM	7554	N	SER	B	217	50.037	85.441	90.143	1.00 31.96
ATOM	7555	CA	SER	B	217	50.629	86.205	91.257	1.00 32.49
ATOM	7556	C	SER	B	217	50.974	85.256	92.383	1.00 32.33
ATOM	7557	O	SER	B	217	50.307	84.243	92.544	1.00 30.55
ATOM	7558	CB	SER	B	217	49.532	87.020	91.937	1.00 32.34
ATOM	7559	OG	SER	B	217	49.459	88.290	91.440	1.00 34.18
ATOM	7560	N	PRO	B	218	51.911	85.632	93.244	1.00 33.78
ATOM	7561	CA	PRO	B	218	52.202	84.814	94.428	1.00 34.88
ATOM	7562	C	PRO	B	218	51.001	84.778	95.355	1.00 36.39
ATOM	7563	O	PRO	B	218	50.806	83.758	95.986	1.00 37.96
ATOM	7564	CB	PRO	B	218	53.396	85.525	95.063	1.00 35.69
ATOM	7565	CG	PRO	B	218	54.005	86.295	93.922	1.00 35.14
ATOM	7566	CD	PRO	B	218	52.783	86.806	93.157	1.00 33.44
ATOM	7567	N	ASN	B	219	50.232	85.859	95.397	1.00 37.49
ATOM	7568	CA	ASN	B	219	48.946	85.987	96.108	1.00 39.26
ATOM	7569	C	ASN	B	219	47.896	85.043	95.565	1.00 39.67
ATOM	7570	O	ASN	B	219	47.089	84.442	96.291	1.00 39.72
ATOM	7571	CB	ASN	B	219	48.330	87.410	95.850	1.00 38.98
ATOM	7572	CG	ASN	B	219	48.433	88.345	97.060	1.00 41.91
ATOM	7573	OD1	ASN	B	219	48.311	87.888	98.183	1.00 46.79
ATOM	7574	ND2	ASN	B	219	48.625	89.664	96.831	1.00 40.99
ATOM	7575	N	GLY	B	220	47.865	84.980	94.246	1.00 39.21
ATOM	7576	CA	GLY	B	220	46.757	84.360	93.561	1.00 38.69
ATOM	7577	C	GLY	B	220	45.819	85.466	93.098	1.00 38.39
ATOM	7578	O	GLY	B	220	44.786	85.208	92.488	1.00 38.87
ATOM	7579	N	THR	B	221	46.198	86.709	93.358	1.00 37.66
ATOM	7580	CA	THR	B	221	45.350	87.810	93.017	1.00 37.51
ATOM	7581	C	THR	B	221	45.312	88.018	91.540	1.00 37.18
ATOM	7582	O	THR	B	221	44.240	88.020	90.946	1.00 36.90
ATOM	7583	CB	THR	B	221	45.837	89.097	93.696	1.00 37.70
ATOM	7584	OG1	THR	B	221	45.452	89.073	95.067	1.00 39.62
ATOM	7585	CG2	THR	B	221	45.083	90.325	93.187	1.00 37.99
ATOM	7586	N	PHE	B	222	46.495	88.197	90.954	1.00 36.74
ATOM	7587	CA	PHE	B	222	46.612	88.519	89.558	1.00 36.26
ATOM	7588	C	PHE	B	222	46.906	87.321	88.696	1.00 36.17
ATOM	7589	O	PHE	B	222	47.702	86.467	89.069	1.00 36.16
ATOM	7590	CB	PHE	B	222	47.740	89.503	89.318	1.00 35.78
ATOM	7591	CG	PHE	B	222	47.521	90.848	89.914	1.00 37.68
ATOM	7592	CD1	PHE	B	222	46.630	91.752	89.335	1.00 37.31
ATOM	7593	CD2	PHE	B	222	48.253	91.252	91.030	1.00 37.75
ATOM	7594	CE1	PHE	B	222	46.446	93.032	89.887	1.00 37.85
ATOM	7595	CE2	PHE	B	222	48.072	92.530	91.576	1.00 38.13
ATOM	7596	CZ	PHE	B	222	47.179	93.415	91.009	1.00 37.06
ATOM	7597	N	LEU	B	223	46.328	87.331	87.488	1.00 35.02
ATOM	7598	CA	LEU	B	223	46.599	86.308	86.501	1.00 35.02
ATOM	7599	C	LEU	B	223	47.239	87.009	85.291	1.00 33.04
ATOM	7600	O	LEU	B	223	46.591	87.766	84.585	1.00 34.11
ATOM	7601	CB	LEU	B	223	45.301	85.598	86.101	1.00 34.43
ATOM	7602	CG	LEU	B	223	45.364	84.124	85.650	1.00 37.73
ATOM	7603	CD1	LEU	B	223	44.380	83.825	84.519	1.00 35.89
ATOM	7604	CD2	LEU	B	223	46.763	83.670	85.228	1.00 37.28
ATOM	7605	N	ALA	B	224	48.524	86.815	85.068	1.00 32.28
ATOM	7606	CA	ALA	B	224	49.121	87.381	83.858	1.00 31.54
ATOM	7607	C	ALA	B	224	49.196	86.324	82.780	1.00 30.26
ATOM	7608	O	ALA	B	224	49.320	85.158	83.085	1.00 28.46
ATOM	7609	CB	ALA	B	224	50.481	87.937	84.122	1.00 31.38
ATOM	7610	N	TYR	B	225	49.154	86.766	81.522	1.00 30.30
ATOM	7611	CA	TYR	B	225	49.173	85.882	80.367	1.00 29.65
ATOM	7612	C	TYR	B	225	49.641	86.597	79.120	1.00 29.29
ATOM	7613	O	TYR	B	225	49.570	87.822	78.998	1.00 29.09
ATOM	7614	CB	TYR	B	225	47.801	85.269	80.059	1.00 29.11
ATOM	7615	CG	TYR	B	225	46.745	86.248	79.586	1.00 30.78
ATOM	7616	CD1	TYR	B	225	45.958	86.910	80.487	1.00 32.08

ATOM	7617	CD2	TYR	B	225	46.512	86.490	78.230	1.00	30.84
ATOM	7618	CE1	TYR	B	225	44.970	87.785	80.089	1.00	31.25
ATOM	7619	CE2	TYR	B	225	45.530	87.377	77.835	1.00	30.95
ATOM	7620	CZ	TYR	B	225	44.767	88.025	78.777	1.00	32.45
ATOM	7621	OH	TYR	B	225	43.766	88.926	78.436	1.00	34.02
ATOM	7622	N	ALA	B	226	50.127	85.782	78.196	1.00	28.63
ATOM	7623	CA	ALA	B	226	50.610	86.237	76.907	1.00	28.11
ATOM	7624	C	ALA	B	226	49.622	85.793	75.854	1.00	27.59
ATOM	7625	O	ALA	B	226	48.916	84.793	76.027	1.00	27.17
ATOM	7626	CB	ALA	B	226	51.983	85.621	76.608	1.00	27.99
ATOM	7627	N	GLN	B	227	49.595	86.533	74.761	1.00	27.13
ATOM	7628	CA	GLN	B	227	48.750	86.216	73.620	1.00	27.83
ATOM	7629	C	GLN	B	227	49.612	86.226	72.383	1.00	27.32
ATOM	7630	O	GLN	B	227	50.416	87.141	72.181	1.00	25.90
ATOM	7631	CB	GLN	B	227	47.664	87.257	73.452	1.00	28.61
ATOM	7632	CG	GLN	B	227	46.691	86.956	72.370	1.00	27.98
ATOM	7633	CD	GLN	B	227	45.812	88.148	72.094	1.00	29.34
ATOM	7634	OE1	GLN	B	227	46.259	89.131	71.487	1.00	29.32
ATOM	7635	NE2	GLN	B	227	44.579	88.086	72.559	1.00	25.03
ATOM	7636	N	PHE	B	228	49.498	85.179	71.583	1.00	26.63
ATOM	7637	CA	PHE	B	228	50.315	85.107	70.405	1.00	27.20
ATOM	7638	C	PHE	B	228	49.429	85.135	69.209	1.00	26.71
ATOM	7639	O	PHE	B	228	48.351	84.548	69.235	1.00	28.26
ATOM	7640	CB	PHE	B	228	51.194	83.894	70.415	1.00	26.80
ATOM	7641	CG	PHE	B	228	51.989	83.746	71.681	1.00	27.53
ATOM	7642	CD1	PHE	B	228	53.196	84.397	71.831	1.00	25.12
ATOM	7643	CD2	PHE	B	228	51.517	82.964	72.729	1.00	24.95
ATOM	7644	CE1	PHE	B	228	53.927	84.259	72.979	1.00	23.41
ATOM	7645	CE2	PHE	B	228	52.264	82.821	73.888	1.00	24.50
ATOM	7646	CZ	PHE	B	228	53.472	83.460	74.006	1.00	22.75
ATOM	7647	N	ASN	B	229	49.865	85.851	68.186	1.00	26.75
ATOM	7648	CA	ASN	B	229	49.084	85.996	66.988	1.00	28.12
ATOM	7649	C	ASN	B	229	49.925	85.496	65.821	1.00	28.58
ATOM	7650	O	ASN	B	229	50.984	86.052	65.514	1.00	28.66
ATOM	7651	CB	ASN	B	229	48.654	87.465	66.821	1.00	28.28
ATOM	7652	CG	ASN	B	229	47.711	87.671	65.636	1.00	28.87
ATOM	7653	OD1	ASN	B	229	47.694	86.887	64.668	1.00	27.69
ATOM	7654	ND2	ASN	B	229	46.909	88.711	65.731	1.00	32.77
ATOM	7655	N	ASP	B	230	49.438	84.422	65.198	1.00	29.23
ATOM	7656	CA	ASP	B	230	50.127	83.693	64.139	1.00	29.42
ATOM	7657	C	ASP	B	230	49.504	83.839	62.730	1.00	29.87
ATOM	7658	O	ASP	B	230	49.922	83.182	61.765	1.00	28.49
ATOM	7659	CB	ASP	B	230	50.094	82.215	64.530	1.00	29.90
ATOM	7660	CG	ASP	B	230	51.209	81.847	65.465	1.00	30.77
ATOM	7661	OD1	ASP	B	230	51.273	82.457	66.540	1.00	36.25
ATOM	7662	OD2	ASP	B	230	52.063	80.994	65.214	1.00	31.62
ATOM	7663	N	THR	B	231	48.533	84.724	62.620	1.00	30.50
ATOM	7664	CA	THR	B	231	47.829	84.952	61.365	1.00	31.25
ATOM	7665	C	THR	B	231	48.641	84.879	60.118	1.00	31.98
ATOM	7666	O	THR	B	231	48.215	84.207	59.184	1.00	33.25
ATOM	7667	CB	THR	B	231	47.149	86.272	61.366	1.00	31.46
ATOM	7668	OG1	THR	B	231	46.132	86.231	62.345	1.00	31.85
ATOM	7669	CG2	THR	B	231	46.333	86.506	60.005	1.00	34.71
ATOM	7670	N	GLU	B	232	49.772	85.569	60.046	1.00	31.14
ATOM	7671	CA	GLU	B	232	50.509	85.533	58.801	1.00	31.74
ATOM	7672	C	GLU	B	232	51.747	84.650	58.894	1.00	30.99
ATOM	7673	O	GLU	B	232	52.658	84.822	58.132	1.00	30.42
ATOM	7674	CB	GLU	B	232	50.931	86.941	58.413	1.00	33.19
ATOM	7675	CG	GLU	B	232	49.805	87.952	58.494	1.00	36.69
ATOM	7676	CD	GLU	B	232	50.150	89.268	57.821	1.00	43.55
ATOM	7677	OE1	GLU	B	232	50.032	89.349	56.567	1.00	45.34
ATOM	7678	OE2	GLU	B	232	50.526	90.218	58.561	1.00	48.36
ATOM	7679	N	VAL	B	233	51.805	83.752	59.872	1.00	29.36
ATOM	7680	CA	VAL	B	233	52.922	82.852	59.945	1.00	28.97
ATOM	7681	C	VAL	B	233	52.656	81.746	58.927	1.00	27.82
ATOM	7682	O	VAL	B	233	51.558	81.243	58.860	1.00	27.90
ATOM	7683	CB	VAL	B	233	53.056	82.322	61.344	1.00	29.57
ATOM	7684	CG1	VAL	B	233	54.181	81.310	61.438	1.00	29.42
ATOM	7685	CG2	VAL	B	233	53.265	83.519	62.340	1.00	31.02
ATOM	7686	N	PRO	B	234	53.611	81.429	58.066	1.00	27.73

ATOM	7687	CA	PRO	B	234	53.378	80.375	57.063	1.00 28.03
ATOM	7688	C	PRO	B	234	53.297	78.995	57.693	1.00 28.08
ATOM	7689	O	PRO	B	234	53.815	78.743	58.790	1.00 29.28
ATOM	7690	CB	PRO	B	234	54.580	80.487	56.115	1.00 28.06
ATOM	7691	CG	PRO	B	234	55.243	81.799	56.477	1.00 28.38
ATOM	7692	CD	PRO	B	234	54.928	82.072	57.908	1.00 27.42
ATOM	7693	N	LEU	B	235	52.607	78.107	57.008	1.00 27.75
ATOM	7694	CA	LEU	B	235	52.366	76.786	57.502	1.00 27.64
ATOM	7695	C	LEU	B	235	53.280	75.745	56.922	1.00 27.09
ATOM	7696	O	LEU	B	235	53.567	75.789	55.734	1.00 26.39
ATOM	7697	CB	LEU	B	235	50.918	76.398	57.165	1.00 29.04
ATOM	7698	CG	LEU	B	235	49.888	77.425	57.648	1.00 30.71
ATOM	7699	CD1	LEU	B	235	48.532	77.339	56.918	1.00 34.01
ATOM	7700	CD2	LEU	B	235	49.669	77.245	59.095	1.00 30.08
ATOM	7701	N	ILE	B	236	53.806	74.853	57.781	1.00 25.72
ATOM	7702	CA	ILE	B	236	54.442	73.660	57.283	1.00 24.98
ATOM	7703	C	ILE	B	236	53.316	72.667	57.124	1.00 24.14
ATOM	7704	O	ILE	B	236	52.377	72.597	57.938	1.00 23.94
ATOM	7705	CB	ILE	B	236	55.598	73.143	58.182	1.00 25.42
ATOM	7706	CG1	ILE	B	236	56.360	72.041	57.439	1.00 28.92
ATOM	7707	CG2	ILE	B	236	55.122	72.770	59.579	1.00 26.00
ATOM	7708	CD1	ILE	B	236	56.567	70.833	58.283	1.00 33.95
ATOM	7709	N	GLU	B	237	53.410	71.894	56.069	1.00 23.99
ATOM	7710	CA	GLU	B	237	52.372	70.939	55.679	1.00 24.82
ATOM	7711	C	GLU	B	237	53.073	69.617	55.389	1.00 24.01
ATOM	7712	O	GLU	B	237	54.087	69.604	54.769	1.00 23.08
ATOM	7713	CB	GLU	B	237	51.611	71.483	54.459	1.00 24.84
ATOM	7714	CG	GLU	B	237	50.961	72.848	54.752	1.00 27.02
ATOM	7715	CD	GLU	B	237	49.817	73.264	53.816	1.00 30.40
ATOM	7716	OE1	GLU	B	237	49.655	72.689	52.733	1.00 30.28
ATOM	7717	OE2	GLU	B	237	49.055	74.198	54.167	1.00 33.11
ATOM	7718	N	TYR	B	238	52.601	68.533	55.978	1.00 23.87
ATOM	7719	CA	TYR	B	238	53.143	67.213	55.721	1.00 23.57
ATOM	7720	C	TYR	B	238	52.022	66.237	55.926	1.00 24.22
ATOM	7721	O	TYR	B	238	51.055	66.512	56.644	1.00 22.25
ATOM	7722	CB	TYR	B	238	54.342	66.855	56.632	1.00 23.29
ATOM	7723	CG	TYR	B	238	54.099	67.003	58.135	1.00 24.82
ATOM	7724	CD1	TYR	B	238	54.357	68.200	58.773	1.00 24.60
ATOM	7725	CD2	TYR	B	238	53.622	65.964	58.897	1.00 25.53
ATOM	7726	CE1	TYR	B	238	54.136	68.368	60.097	1.00 25.40
ATOM	7727	CE2	TYR	B	238	53.413	66.126	60.293	1.00 24.43
ATOM	7728	CZ	TYR	B	238	53.694	67.340	60.857	1.00 24.49
ATOM	7729	OH	TYR	B	238	53.549	67.600	62.182	1.00 25.79
ATOM	7730	N	SER	B	239	52.164	65.090	55.265	1.00 25.22
ATOM	7731	CA	SER	B	239	51.223	63.983	55.363	1.00 25.50
ATOM	7732	C	SER	B	239	51.349	63.189	56.649	1.00 25.41
ATOM	7733	O	SER	B	239	52.422	63.075	57.174	1.00 26.57
ATOM	7734	CB	SER	B	239	51.485	63.044	54.211	1.00 25.24
ATOM	7735	OG	SER	B	239	51.186	63.705	53.021	1.00 24.84
ATOM	7736	N	PHE	B	240	50.220	62.717	57.179	1.00 25.98
ATOM	7737	CA	PHE	B	240	50.158	61.814	58.320	1.00 25.45
ATOM	7738	C	PHE	B	240	49.294	60.655	57.830	1.00 25.82
ATOM	7739	O	PHE	B	240	48.155	60.873	57.414	1.00 25.70
ATOM	7740	CB	PHE	B	240	49.484	62.466	59.537	1.00 25.55
ATOM	7741	CG	PHE	B	240	49.625	61.658	60.781	1.00 25.99
ATOM	7742	CD1	PHE	B	240	50.773	61.749	61.550	1.00 28.27
ATOM	7743	CD2	PHE	B	240	48.679	60.743	61.130	1.00 26.52
ATOM	7744	CE1	PHE	B	240	50.940	60.961	62.696	1.00 29.81
ATOM	7745	CE2	PHE	B	240	48.852	59.949	62.251	1.00 28.54
ATOM	7746	CZ	PHE	B	240	49.990	60.060	63.027	1.00 29.91
ATOM	7747	N	TYR	B	241	49.820	59.437	57.868	1.00 25.66
ATOM	7748	CA	TYR	B	241	49.142	58.310	57.264	1.00 25.52
ATOM	7749	C	TYR	B	241	48.157	57.530	58.182	1.00 26.95
ATOM	7750	O	TYR	B	241	47.129	57.045	57.706	1.00 25.02
ATOM	7751	CB	TYR	B	241	50.208	57.419	56.620	1.00 25.51
ATOM	7752	CG	TYR	B	241	51.079	58.205	55.630	1.00 25.02
ATOM	7753	CD1	TYR	B	241	50.642	58.430	54.333	1.00 24.85
ATOM	7754	CD2	TYR	B	241	52.313	58.742	56.019	1.00 24.74
ATOM	7755	CE1	TYR	B	241	51.385	59.183	53.434	1.00 24.84
ATOM	7756	CE2	TYR	B	241	53.084	59.469	55.143	1.00 25.22

ATOM	7757	CZ	TYR	B	241	52.599	59.681	53.841	1.00	24.72
ATOM	7758	OH	TYR	B	241	53.307	60.384	52.982	1.00	25.39
ATOM	7759	N	SER	B	242	48.442	57.507	59.498	1.00	28.06
ATOM	7760	CA	SER	B	242	47.718	56.743	60.527	1.00	28.10
ATOM	7761	C	SER	B	242	47.597	55.270	60.275	1.00	27.38
ATOM	7762	O	SER	B	242	48.408	54.696	59.581	1.00	27.05
ATOM	7763	CB	SER	B	242	46.339	57.314	60.912	1.00	28.67
ATOM	7764	OG	SER	B	242	45.832	58.068	59.883	1.00	34.27
ATOM	7765	N	ASP	B	243	46.621	54.657	60.943	1.00	27.89
ATOM	7766	CA	ASP	B	243	46.342	53.244	60.845	1.00	29.32
ATOM	7767	C	ASP	B	243	46.001	52.909	59.380	1.00	28.89
ATOM	7768	O	ASP	B	243	45.590	53.790	58.607	1.00	29.54
ATOM	7769	CB	ASP	B	243	45.185	52.876	61.818	1.00	30.16
ATOM	7770	CG	ASP	B	243	45.456	53.350	63.300	1.00	35.73
ATOM	7771	OD1	ASP	B	243	46.600	53.169	63.810	1.00	38.58
ATOM	7772	OD2	ASP	B	243	44.608	53.961	64.025	1.00	39.36
ATOM	7773	N	GLU	B	244	46.212	51.669	58.987	1.00	28.75
ATOM	7774	CA	GLU	B	244	45.862	51.205	57.648	1.00	30.00
ATOM	7775	C	GLU	B	244	44.417	51.504	57.191	1.00	29.87
ATOM	7776	O	GLU	B	244	44.161	51.540	55.985	1.00	29.78
ATOM	7777	CB	GLU	B	244	45.847	49.685	57.590	1.00	31.02
ATOM	7778	CG	GLU	B	244	47.091	48.927	57.831	1.00	33.19
ATOM	7779	CD	GLU	B	244	46.840	47.448	57.551	1.00	37.41
ATOM	7780	OE1	GLU	B	244	46.089	47.131	56.597	1.00	35.31
ATOM	7781	OE2	GLU	B	244	47.418	46.600	58.279	1.00	43.04
ATOM	7782	N	SER	B	245	43.478	51.638	58.136	1.00	28.42
ATOM	7783	CA	SER	B	245	42.078	51.855	57.793	1.00	28.88
ATOM	7784	C	SER	B	245	41.792	53.213	57.185	1.00	27.78
ATOM	7785	O	SER	B	245	40.774	53.415	56.553	1.00	29.01
ATOM	7786	CB	SER	B	245	41.185	51.664	59.043	1.00	28.82
ATOM	7787	OG	SER	B	245	41.671	52.500	60.086	1.00	30.11
ATOM	7788	N	LEU	B	246	42.658	54.173	57.389	1.00	26.88
ATOM	7789	CA	LEU	B	246	42.419	55.476	56.821	1.00	27.33
ATOM	7790	C	LEU	B	246	42.697	55.448	55.306	1.00	26.18
ATOM	7791	O	LEU	B	246	43.813	55.191	54.876	1.00	25.08
ATOM	7792	CB	LEU	B	246	43.354	56.483	57.425	1.00	27.45
ATOM	7793	CG	LEU	B	246	42.894	57.878	57.761	1.00	31.22
ATOM	7794	CD1	LEU	B	246	43.988	58.847	57.373	1.00	32.53
ATOM	7795	CD2	LEU	B	246	41.541	58.313	57.252	1.00	31.50
ATOM	7796	N	GLN	B	247	41.701	55.804	54.528	1.00	25.48
ATOM	7797	CA	GLN	B	247	41.773	55.696	53.090	1.00	25.50
ATOM	7798	C	GLN	B	247	42.559	56.842	52.452	1.00	25.73
ATOM	7799	O	GLN	B	247	43.349	56.623	51.553	1.00	26.11
ATOM	7800	CB	GLN	B	247	40.339	55.580	52.521	1.00	24.84
ATOM	7801	CG	GLN	B	247	40.311	55.160	51.065	1.00	25.22
ATOM	7802	CD	GLN	B	247	38.897	54.968	50.524	1.00	25.16
ATOM	7803	OE1	GLN	B	247	37.963	55.646	50.962	1.00	24.22
ATOM	7804	NE2	GLN	B	247	38.741	54.041	49.583	1.00	21.11
ATOM	7805	N	TYR	B	248	42.307	58.063	52.886	1.00	26.15
ATOM	7806	CA	TYR	B	248	43.064	59.198	52.417	1.00	26.69
ATOM	7807	C	TYR	B	248	43.936	59.730	53.539	1.00	27.73
ATOM	7808	O	TYR	B	248	43.465	59.967	54.649	1.00	27.01
ATOM	7809	CB	TYR	B	248	42.149	60.327	51.953	1.00	26.34
ATOM	7810	CG	TYR	B	248	41.422	60.005	50.663	1.00	27.01
ATOM	7811	CD1	TYR	B	248	40.307	59.173	50.666	1.00	26.91
ATOM	7812	CD2	TYR	B	248	41.840	60.546	49.441	1.00	27.29
ATOM	7813	CE1	TYR	B	248	39.604	58.896	49.493	1.00	27.29
ATOM	7814	CE2	TYR	B	248	41.154	60.242	48.248	1.00	28.74
ATOM	7815	CZ	TYR	B	248	40.044	59.408	48.291	1.00	27.43
ATOM	7816	OH	TYR	B	248	39.357	59.124	47.142	1.00	24.10
ATOM	7817	N	PRO	B	249	45.213	59.930	53.242	1.00	28.25
ATOM	7818	CA	PRO	B	249	46.134	60.497	54.223	1.00	28.79
ATOM	7819	C	PRO	B	249	45.698	61.885	54.691	1.00	29.17
ATOM	7820	O	PRO	B	249	45.064	62.633	53.951	1.00	26.48
ATOM	7821	CB	PRO	B	249	47.462	60.574	53.462	1.00	28.57
ATOM	7822	CG	PRO	B	249	47.306	59.622	52.325	1.00	29.61
ATOM	7823	CD	PRO	B	249	45.876	59.583	51.984	1.00	27.88
ATOM	7824	N	LYS	B	250	45.985	62.191	55.961	1.00	29.80
ATOM	7825	CA	LYS	B	250	45.693	63.513	56.475	1.00	29.97
ATOM	7826	C	LYS	B	250	46.885	64.417	56.200	1.00	29.32

ATOM	7827	O	LYS	B	250	48.024	63.962	56.092	1.00	28.82
ATOM	7828	CB	LYS	B	250	45.389	63.469	57.988	1.00	31.46
ATOM	7829	CG	LYS	B	250	44.694	64.750	58.497	1.00	35.67
ATOM	7830	CD	LYS	B	250	44.889	65.052	60.033	1.00	41.42
ATOM	7831	CE	LYS	B	250	45.094	66.583	60.300	1.00	43.24
ATOM	7832	NZ	LYS	B	250	45.086	66.930	61.773	1.00	45.60
ATOM	7833	N	THR	B	251	46.601	65.700	56.025	1.00	28.46
ATOM	7834	CA	THR	B	251	47.616	66.698	55.877	1.00	28.16
ATOM	7835	C	THR	B	251	47.671	67.550	57.163	1.00	27.00
ATOM	7836	O	THR	B	251	46.720	68.218	57.493	1.00	27.97
ATOM	7837	CB	THR	B	251	47.323	67.598	54.675	1.00	28.23
ATOM	7838	OG1	THR	B	251	47.486	66.860	53.467	1.00	27.70
ATOM	7839	CG2	THR	B	251	48.390	68.676	54.558	1.00	28.77
ATOM	7840	N	VAL	B	252	48.786	67.493	57.873	1.00	25.71
ATOM	7841	CA	VAL	B	252	48.999	68.270	59.078	1.00	25.09
ATOM	7842	C	VAL	B	252	49.496	69.653	58.664	1.00	25.01
ATOM	7843	O	VAL	B	252	50.368	69.785	57.804	1.00	23.34
ATOM	7844	CB	VAL	B	252	50.022	67.564	59.975	1.00	25.60
ATOM	7845	CG1	VAL	B	252	50.202	68.289	61.320	1.00	25.24
ATOM	7846	CG2	VAL	B	252	49.564	66.168	60.247	1.00	26.76
ATOM	7847	N	ARG	B	253	48.889	70.684	59.224	1.00	24.91
ATOM	7848	CA	ARG	B	253	49.261	72.040	58.915	1.00	26.21
ATOM	7849	C	ARG	B	253	49.566	72.741	60.236	1.00	25.85
ATOM	7850	O	ARG	B	253	48.699	72.826	61.087	1.00	26.18
ATOM	7851	CB	ARG	B	253	48.141	72.761	58.151	1.00	26.65
ATOM	7852	CG	ARG	B	253	47.931	72.258	56.759	1.00	31.04
ATOM	7853	CD	ARG	B	253	46.673	72.756	56.041	1.00	36.68
ATOM	7854	NE	ARG	B	253	45.671	71.694	56.094	1.00	45.06
ATOM	7855	CZ	ARG	B	253	45.255	70.954	55.056	1.00	48.15
ATOM	7856	NH1	ARG	B	253	45.699	71.157	53.804	1.00	47.19
ATOM	7857	NH2	ARG	B	253	44.366	70.001	55.287	1.00	48.13
ATOM	7858	N	VAL	B	254	50.808	73.190	60.400	1.00	25.30
ATOM	7859	CA	VAL	B	254	51.248	73.868	61.599	1.00	25.01
ATOM	7860	C	VAL	B	254	51.866	75.230	61.307	1.00	25.27
ATOM	7861	O	VAL	B	254	52.764	75.357	60.500	1.00	24.30
ATOM	7862	CB	VAL	B	254	52.329	73.064	62.258	1.00	24.74
ATOM	7863	CG1	VAL	B	254	52.731	73.675	63.653	1.00	26.20
ATOM	7864	CG2	VAL	B	254	51.902	71.651	62.386	1.00	24.36
ATOM	7865	N	PRO	B	255	51.413	76.257	61.990	1.00	25.74
ATOM	7866	CA	PRO	B	255	52.028	77.582	61.825	1.00	26.05
ATOM	7867	C	PRO	B	255	53.450	77.486	62.374	1.00	26.44
ATOM	7868	O	PRO	B	255	53.583	77.224	63.562	1.00	25.74
ATOM	7869	CB	PRO	B	255	51.156	78.486	62.661	1.00	26.77
ATOM	7870	CG	PRO	B	255	49.849	77.683	62.869	1.00	27.04
ATOM	7871	CD	PRO	B	255	50.316	76.248	62.959	1.00	26.03
ATOM	7872	N	TYR	B	256	54.467	77.610	61.506	1.00	25.43
ATOM	7873	CA	TYR	B	256	55.881	77.432	61.864	1.00	23.71
ATOM	7874	C	TYR	B	256	56.741	78.390	61.070	1.00	23.86
ATOM	7875	O	TYR	B	256	56.866	78.242	59.847	1.00	23.06
ATOM	7876	CB	TYR	B	256	56.275	76.019	61.451	1.00	24.30
ATOM	7877	CG	TYR	B	256	57.692	75.536	61.692	1.00	23.12
ATOM	7878	CD1	TYR	B	256	58.773	76.045	60.985	1.00	23.72
ATOM	7879	CD2	TYR	B	256	57.929	74.518	62.579	1.00	22.68
ATOM	7880	CE1	TYR	B	256	60.066	75.552	61.179	1.00	22.28
ATOM	7881	CE2	TYR	B	256	59.194	74.015	62.786	1.00	24.55
ATOM	7882	CZ	TYR	B	256	60.262	74.531	62.088	1.00	25.38
ATOM	7883	OH	TYR	B	256	61.499	74.011	62.310	1.00	22.59
ATOM	7884	N	PRO	B	257	57.347	79.378	61.732	1.00	23.65
ATOM	7885	CA	PRO	B	257	58.211	80.350	61.038	1.00	23.40
ATOM	7886	C	PRO	B	257	59.554	79.785	60.746	1.00	22.75
ATOM	7887	O	PRO	B	257	60.275	79.547	61.674	1.00	24.71
ATOM	7888	CB	PRO	B	257	58.429	81.473	62.068	1.00	24.29
ATOM	7889	CG	PRO	B	257	58.042	80.886	63.474	1.00	24.80
ATOM	7890	CD	PRO	B	257	57.282	79.604	63.181	1.00	24.55
ATOM	7891	N	LYS	B	258	59.874	79.580	59.491	1.00	23.80
ATOM	7892	CA	LYS	B	258	61.198	79.199	59.030	1.00	23.19
ATOM	7893	C	LYS	B	258	62.111	80.462	59.053	1.00	24.02
ATOM	7894	O	LYS	B	258	61.674	81.591	59.259	1.00	20.36
ATOM	7895	CB	LYS	B	258	61.108	78.534	57.642	1.00	23.36
ATOM	7896	CG	LYS	B	258	60.637	77.040	57.673	1.00	22.40

ATOM	7897	CD	LYS	B	258	60.277	76.473	56.281	1.00 23.16
ATOM	7898	CE	LYS	B	258	59.820	74.992	56.340	1.00 22.40
ATOM	7899	NZ	LYS	B	258	60.874	74.018	56.757	1.00 21.29
ATOM	7900	N	ALA	B	259	63.407	80.229	58.956	1.00 26.33
ATOM	7901	CA	ALA	B	259	64.377	81.292	59.168	1.00 27.36
ATOM	7902	C	ALA	B	259	64.066	82.392	58.213	1.00 28.09
ATOM	7903	O	ALA	B	259	63.938	82.139	57.022	1.00 27.41
ATOM	7904	CB	ALA	B	259	65.812	80.758	58.966	1.00 27.89
ATOM	7905	N	GLY	B	260	63.868	83.602	58.749	1.00 28.60
ATOM	7906	CA	GLY	B	260	63.602	84.769	57.932	1.00 28.14
ATOM	7907	C	GLY	B	260	62.147	85.007	57.621	1.00 28.41
ATOM	7908	O	GLY	B	260	61.799	86.031	57.026	1.00 28.16
ATOM	7909	N	ALA	B	261	61.280	84.100	58.039	1.00 27.69
ATOM	7910	CA	ALA	B	261	59.862	84.234	57.713	1.00 28.41
ATOM	7911	C	ALA	B	261	59.130	85.087	58.742	1.00 27.69
ATOM	7912	O	ALA	B	261	59.684	85.417	59.797	1.00 26.36
ATOM	7913	CB	ALA	B	261	59.209	82.853	57.611	1.00 29.03
ATOM	7914	N	VAL	B	262	57.892	85.463	58.424	1.00 26.40
ATOM	7915	CA	VAL	B	262	57.100	86.220	59.364	1.00 26.14
ATOM	7916	C	VAL	B	262	56.942	85.380	60.658	1.00 26.40
ATOM	7917	O	VAL	B	262	56.500	84.251	60.592	1.00 25.67
ATOM	7918	CB	VAL	B	262	55.689	86.556	58.816	1.00 26.61
ATOM	7919	CG1	VAL	B	262	54.787	87.059	59.912	1.00 26.64
ATOM	7920	CG2	VAL	B	262	55.718	87.604	57.635	1.00 27.06
ATOM	7921	N	ASN	B	263	57.300	85.950	61.815	1.00 25.81
ATOM	7922	CA	ASN	B	263	57.142	85.313	63.115	1.00 26.49
ATOM	7923	C	ASN	B	263	55.807	85.708	63.721	1.00 25.87
ATOM	7924	O	ASN	B	263	55.209	86.670	63.280	1.00 26.72
ATOM	7925	CB	ASN	B	263	58.196	85.859	64.083	1.00 26.60
ATOM	7926	CG	ASN	B	263	59.444	85.013	64.177	1.00 27.28
ATOM	7927	OD1	ASN	B	263	60.455	85.469	64.758	1.00 33.18
ATOM	7928	ND2	ASN	B	263	59.415	83.804	63.640	1.00 18.52
ATOM	7929	N	PRO	B	264	55.324	84.997	64.732	1.00 25.50
ATOM	7930	CA	PRO	B	264	54.143	85.442	65.463	1.00 25.63
ATOM	7931	C	PRO	B	264	54.432	86.709	66.282	1.00 26.29
ATOM	7932	O	PRO	B	264	55.572	86.954	66.662	1.00 25.52
ATOM	7933	CB	PRO	B	264	53.940	84.314	66.460	1.00 27.54
ATOM	7934	CG	PRO	B	264	55.338	83.804	66.699	1.00 24.95
ATOM	7935	CD	PRO	B	264	55.846	83.738	65.286	1.00 25.96
ATOM	7936	N	THR	B	265	53.424	87.516	66.550	1.00 26.67
ATOM	7937	CA	THR	B	265	53.621	88.650	67.431	1.00 27.04
ATOM	7938	C	THR	B	265	53.054	88.264	68.773	1.00 26.93
ATOM	7939	O	THR	B	265	52.300	87.304	68.888	1.00 24.94
ATOM	7940	CB	THR	B	265	52.860	89.840	66.942	1.00 27.26
ATOM	7941	OG1	THR	B	265	51.525	89.412	66.683	1.00 25.84
ATOM	7942	CG2	THR	B	265	53.422	90.368	65.611	1.00 28.09
ATOM	7943	N	VAL	B	266	53.357	89.073	69.779	1.00 27.81
ATOM	7944	CA	VAL	B	266	52.907	88.766	71.137	1.00 28.12
ATOM	7945	C	VAL	B	266	52.476	89.967	71.903	1.00 27.91
ATOM	7946	O	VAL	B	266	52.986	91.042	71.695	1.00 28.76
ATOM	7947	CB	VAL	B	266	54.032	88.068	71.923	1.00 28.38
ATOM	7948	CG1	VAL	B	266	55.318	88.852	71.856	1.00 30.25
ATOM	7949	CG2	VAL	B	266	53.630	87.871	73.366	1.00 29.69
ATOM	7950	N	LYS	B	267	51.524	89.769	72.808	1.00 28.94
ATOM	7951	CA	LYS	B	267	50.987	90.823	73.663	1.00 29.03
ATOM	7952	C	LYS	B	267	50.978	90.238	75.054	1.00 28.26
ATOM	7953	O	LYS	B	267	50.955	89.011	75.206	1.00 26.79
ATOM	7954	CB	LYS	B	267	49.556	91.216	73.258	1.00 29.74
ATOM	7955	CG	LYS	B	267	49.404	92.074	71.966	1.00 34.60
ATOM	7956	CD	LYS	B	267	50.108	93.458	72.157	1.00 40.68
ATOM	7957	CE	LYS	B	267	49.430	94.624	71.317	1.00 44.72
ATOM	7958	NZ	LYS	B	267	49.882	96.041	71.682	1.00 42.65
ATOM	7959	N	PHE	B	268	51.020	91.112	76.060	1.00 28.28
ATOM	7960	CA	PHE	B	268	51.060	90.697	77.453	1.00 28.24
ATOM	7961	C	PHE	B	268	50.017	91.429	78.247	1.00 28.18
ATOM	7962	O	PHE	B	268	49.842	92.624	78.075	1.00 28.10
ATOM	7963	CB	PHE	B	268	52.466	90.919	78.041	1.00 28.72
ATOM	7964	CG	PHE	B	268	52.652	90.334	79.425	1.00 27.25
ATOM	7965	CD1	PHE	B	268	53.019	89.030	79.583	1.00 26.79
ATOM	7966	CD2	PHE	B	268	52.450	91.100	80.539	1.00 28.85

ATOM	7967	CE1	PHE	B	268	53.180	88.488	80.803	1.00	26.99
ATOM	7968	CE2	PHE	B	268	52.635	90.579	81.789	1.00	28.72
ATOM	7969	CZ	PHE	B	268	52.991	89.250	81.922	1.00	29.46
ATOM	7970	N	PHE	B	269	49.342	90.707	79.138	1.00	28.38
ATOM	7971	CA	PHE	B	269	48.229	91.238	79.890	1.00	29.07
ATOM	7972	C	PHE	B	269	48.189	90.753	81.329	1.00	30.14
ATOM	7973	O	PHE	B	269	48.738	89.698	81.678	1.00	29.39
ATOM	7974	CB	PHE	B	269	46.912	90.772	79.266	1.00	29.33
ATOM	7975	CG	PHE	B	269	46.636	91.118	77.804	1.00	29.82
ATOM	7976	CD1	PHE	B	269	46.060	92.573	77.703	1.00	31.70
ATOM	7977	CD2	PHE	B	269	46.901	90.555	76.770	1.00	27.28
ATOM	7978	CE1	PHE	B	269	45.751	93.025	76.404	1.00	31.90
ATOM	7979	CE2	PHE	B	269	46.617	91.011	75.522	1.00	27.59
ATOM	7980	CZ	PHE	B	269	46.041	92.249	75.338	1.00	29.73
ATOM	7981	N	VAL	B	270	47.467	91.491	82.166	1.00	31.12
ATOM	7982	CA	VAL	B	270	47.295	91.070	83.544	1.00	32.19
ATOM	7983	C	VAL	B	270	45.900	91.401	83.950	1.00	32.90
ATOM	7984	O	VAL	B	270	45.427	92.487	83.686	1.00	32.40
ATOM	7985	CB	VAL	B	270	48.222	91.816	84.463	1.00	32.52
ATOM	7986	CG1	VAL	B	270	48.212	91.172	85.864	1.00	32.49
ATOM	7987	CG2	VAL	B	270	49.631	91.835	83.863	1.00	32.85
ATOM	7988	N	VAL	B	271	45.259	90.453	84.604	1.00	33.75
ATOM	7989	CA	VAL	B	271	43.900	90.604	85.044	1.00	35.00
ATOM	7990	C	VAL	B	271	43.826	90.377	86.539	1.00	35.04
ATOM	7991	O	VAL	B	271	44.457	89.457	87.045	1.00	33.68
ATOM	7992	CB	VAL	B	271	43.025	89.491	84.457	1.00	35.21
ATOM	7993	CG1	VAL	B	271	41.595	89.679	84.869	1.00	35.84
ATOM	7994	CG2	VAL	B	271	43.153	89.438	82.966	1.00	37.46
ATOM	7995	N	ASN	B	272	43.011	91.177	87.217	1.00	36.31
ATOM	7996	CA	ASN	B	272	42.713	90.975	88.646	1.00	37.31
ATOM	7997	C	ASN	B	272	41.664	89.919	88.809	1.00	37.75
ATOM	7998	O	ASN	B	272	40.532	90.091	88.427	1.00	37.06
ATOM	7999	CB	ASN	B	272	42.178	92.246	89.300	1.00	38.06
ATOM	8000	CG	ASN	B	272	42.238	92.185	90.817	1.00	37.62
ATOM	8001	OD1	ASN	B	272	41.886	91.172	91.434	1.00	37.86
ATOM	8002	ND2	ASN	B	272	42.694	93.254	91.417	1.00	35.80
ATOM	8003	N	THR	B	273	42.056	88.842	89.452	1.00	39.53
ATOM	8004	CA	THR	B	273	41.240	87.665	89.632	1.00	40.60
ATOM	8005	C	THR	B	273	40.280	87.769	90.834	1.00	42.89
ATOM	8006	O	THR	B	273	39.364	86.948	90.999	1.00	41.51
ATOM	8007	CB	THR	B	273	42.238	86.518	89.758	1.00	40.45
ATOM	8008	OG1	THR	B	273	42.157	85.649	88.612	1.00	43.84
ATOM	8009	CG2	THR	B	273	42.034	85.673	90.930	1.00	38.99
ATOM	8010	N	ASP	B	274	40.479	88.789	91.661	1.00	45.49
ATOM	8011	CA	ASP	B	274	39.691	88.935	92.889	1.00	48.12
ATOM	8012	C	ASP	B	274	38.435	89.759	92.620	1.00	49.85
ATOM	8013	O	ASP	B	274	37.487	89.750	93.406	1.00	49.50
ATOM	8014	CB	ASP	B	274	40.533	89.570	94.003	1.00	48.46
ATOM	8015	CG	ASP	B	274	41.502	88.578	94.648	1.00	49.63
ATOM	8016	OD1	ASP	B	274	41.248	87.349	94.604	1.00	47.99
ATOM	8017	OD2	ASP	B	274	42.543	88.951	95.240	1.00	52.84
ATOM	8018	N	SER	B	275	38.425	90.433	91.472	1.00	51.84
ATOM	8019	CA	SER	B	275	37.279	91.222	91.063	1.00	52.96
ATOM	8020	C	SER	B	275	36.699	90.683	89.775	1.00	54.06
ATOM	8021	O	SER	B	275	36.981	91.222	88.705	1.00	55.29
ATOM	8022	CB	SER	B	275	37.721	92.661	90.817	1.00	53.02
ATOM	8023	OG	SER	B	275	38.518	92.734	89.656	1.00	52.54
ATOM	8024	N	LEU	B	276	35.908	89.623	89.852	1.00	54.49
ATOM	8025	CA	LEU	B	276	35.311	89.070	88.649	1.00	54.65
ATOM	8026	C	LEU	B	276	33.824	88.957	88.839	1.00	54.97
ATOM	8027	O	LEU	B	276	33.358	88.767	89.945	1.00	54.57
ATOM	8028	CB	LEU	B	276	35.909	87.707	88.312	1.00	54.66
ATOM	8029	CG	LEU	B	276	37.364	87.736	87.872	1.00	53.89
ATOM	8030	CD1	LEU	B	276	37.878	86.324	87.751	1.00	54.37
ATOM	8031	CD2	LEU	B	276	37.527	88.496	86.575	1.00	51.77
ATOM	8032	N	SER	B	277	33.087	89.068	87.741	1.00	55.99
ATOM	8033	CA	SER	B	277	31.628	89.074	87.782	1.00	56.29
ATOM	8034	C	SER	B	277	30.999	87.959	86.971	1.00	56.82
ATOM	8035	O	SER	B	277	31.382	87.717	85.826	1.00	56.20
ATOM	8036	CB	SER	B	277	31.114	90.397	87.257	1.00	56.23

ATOM	8037	OG	SER	B	277	29.747	90.266	86.932	1.00	56.57
ATOM	8038	N	SER	B	278	29.994	87.327	87.569	1.00	57.97
ATOM	8039	CA	SER	B	278	29.334	86.171	86.985	1.00	58.95
ATOM	8040	C	SER	B	278	28.986	86.391	85.543	1.00	59.89
ATOM	8041	O	SER	B	278	29.183	85.492	84.726	1.00	60.37
ATOM	8042	CB	SER	B	278	28.078	85.777	87.775	1.00	59.11
ATOM	8043	OG	SER	B	278	28.378	84.786	88.768	1.00	59.81
ATOM	8044	N	VAL	B	279	28.496	87.583	85.210	1.00	60.61
ATOM	8045	CA	VAL	B	279	28.110	87.840	83.829	1.00	61.05
ATOM	8046	C	VAL	B	279	28.938	88.901	83.086	1.00	60.36
ATOM	8047	O	VAL	B	279	29.131	88.783	81.869	1.00	61.06
ATOM	8048	CB	VAL	B	279	26.623	88.223	83.723	1.00	61.89
ATOM	8049	CG1	VAL	B	279	26.075	87.713	82.398	1.00	63.23
ATOM	8050	CG2	VAL	B	279	25.816	87.640	84.889	1.00	62.56
ATOM	8051	N	THR	B	280	29.422	89.920	83.800	1.00	59.14
ATOM	8052	CA	THR	B	280	30.189	91.037	83.197	1.00	57.83
ATOM	8053	C	THR	B	280	31.635	90.680	82.805	1.00	56.12
ATOM	8054	O	THR	B	280	32.362	90.043	83.576	1.00	56.22
ATOM	8055	CB	THR	B	280	30.174	92.238	84.170	1.00	58.21
ATOM	8056	OG1	THR	B	280	28.829	92.709	84.301	1.00	57.77
ATOM	8057	CG2	THR	B	280	30.957	93.466	83.618	1.00	58.84
ATOM	8058	N	ASN	B	281	32.039	91.121	81.613	1.00	54.01
ATOM	8059	CA	ASN	B	281	33.341	90.780	81.024	1.00	52.59
ATOM	8060	C	ASN	B	281	34.552	91.311	81.799	1.00	51.17
ATOM	8061	O	ASN	B	281	34.623	92.490	82.136	1.00	51.36
ATOM	8062	CB	ASN	B	281	33.381	91.205	79.543	1.00	52.22
ATOM	8063	CG	ASN	B	281	32.565	90.259	78.649	1.00	53.14
ATOM	8064	OD1	ASN	B	281	32.162	89.177	79.103	1.00	51.75
ATOM	8065	ND2	ASN	B	281	32.329	90.646	77.377	1.00	50.81
ATOM	8066	N	ALA	B	282	35.495	90.416	82.083	1.00	49.39
ATOM	8067	CA	ALA	B	282	36.697	90.743	82.859	1.00	48.04
ATOM	8068	C	ALA	B	282	37.609	91.717	82.128	1.00	46.65
ATOM	8069	O	ALA	B	282	37.724	91.654	80.906	1.00	45.49
ATOM	8070	CB	ALA	B	282	37.459	89.473	83.164	1.00	48.05
ATOM	8071	N	THR	B	283	38.272	92.609	82.858	1.00	45.32
ATOM	8072	CA	THR	B	283	39.188	93.534	82.193	1.00	45.17
ATOM	8073	C	THR	B	283	40.644	93.048	82.252	1.00	43.92
ATOM	8074	O	THR	B	283	41.140	92.684	83.304	1.00	45.06
ATOM	8075	CB	THR	B	283	39.093	94.945	82.806	1.00	45.56
ATOM	8076	OG1	THR	B	283	37.791	95.509	82.557	1.00	47.54
ATOM	8077	CG2	THR	B	283	40.033	95.895	82.089	1.00	45.76
ATOM	8078	N	SER	B	284	41.311	93.030	81.117	1.00	41.77
ATOM	8079	CA	SER	B	284	42.708	92.665	81.049	1.00	40.86
ATOM	8080	C	SER	B	284	43.529	93.929	80.874	1.00	39.75
ATOM	8081	O	SER	B	284	43.259	94.700	79.963	1.00	39.36
ATOM	8082	CB	SER	B	284	42.952	91.755	79.838	1.00	40.93
ATOM	8083	OG	SER	B	284	42.604	90.405	80.107	1.00	40.28
ATOM	8084	N	ILE	B	285	44.508	94.182	81.734	1.00	38.45
ATOM	8085	CA	ILE	B	285	45.354	95.348	81.495	1.00	37.90
ATOM	8086	C	ILE	B	285	46.556	94.957	80.677	1.00	36.75
ATOM	8087	O	ILE	B	285	47.196	93.952	80.958	1.00	36.40
ATOM	8088	CB	ILE	B	285	45.752	96.057	82.781	1.00	37.70
ATOM	8089	CG1	ILE	B	285	44.512	96.661	83.435	1.00	39.24
ATOM	8090	CG2	ILE	B	285	46.701	97.209	82.477	1.00	37.80
ATOM	8091	CD1	ILE	B	285	44.009	95.843	84.572	1.00	40.83
ATOM	8092	N	GLN	B	286	46.848	95.739	79.639	1.00	36.28
ATOM	8093	CA	GLN	B	286	47.933	95.408	78.741	1.00	36.02
ATOM	8094	C	GLN	B	286	49.270	96.017	79.167	1.00	36.44
ATOM	8095	O	GLN	B	286	49.335	97.183	79.507	1.00	35.96
ATOM	8096	CB	GLN	B	286	47.611	95.830	77.294	1.00	35.59
ATOM	8097	CG	GLN	B	286	48.760	95.542	76.284	1.00	34.01
ATOM	8098	CD	GLN	B	286	48.368	95.650	74.794	1.00	30.38
ATOM	8099	OE1	GLN	B	286	47.325	96.170	74.437	1.00	32.82
ATOM	8100	NE2	GLN	B	286	49.187	95.133	73.951	1.00	27.98
ATOM	8101	N	ILE	B	287	50.341	95.226	79.162	1.00	36.19
ATOM	8102	CA	ILE	B	287	51.628	95.820	79.365	1.00	36.28
ATOM	8103	C	ILE	B	287	52.345	95.765	78.029	1.00	36.85
ATOM	8104	O	ILE	B	287	52.539	94.720	77.428	1.00	36.85
ATOM	8105	CB	ILE	B	287	52.455	95.182	80.477	1.00	36.53
ATOM	8106	CG1	ILE	B	287	51.718	95.200	81.808	1.00	36.38

ATOM	8107	CG2	ILE	B	287	53.784	95.966	80.636	1.00	36.09
ATOM	8108	CD1	ILE	B	287	52.495	94.510	82.943	1.00	37.45
ATOM	8109	N	THR	B	288	52.697	96.936	77.551	1.00	37.71
ATOM	8110	CA	THR	B	288	53.355	97.092	76.274	1.00	38.55
ATOM	8111	C	THR	B	288	54.865	96.886	76.355	1.00	37.97
ATOM	8112	O	THR	B	288	55.512	97.302	77.281	1.00	37.22
ATOM	8113	CB	THR	B	288	53.019	98.516	75.753	1.00	39.37
ATOM	8114	OG1	THR	B	288	51.614	98.585	75.420	1.00	40.35
ATOM	8115	CG2	THR	B	288	53.681	98.761	74.440	1.00	40.05
ATOM	8116	N	ALA	B	289	55.416	96.198	75.379	1.00	38.81
ATOM	8117	CA	ALA	B	289	56.850	96.042	75.308	1.00	39.29
ATOM	8118	C	ALA	B	289	57.457	97.433	75.256	1.00	39.54
ATOM	8119	O	ALA	B	289	56.809	98.366	74.835	1.00	39.93
ATOM	8120	CB	ALA	B	289	57.211	95.266	74.067	1.00	39.55
ATOM	8121	N	PRO	B	290	58.683	97.593	75.722	1.00	39.99
ATOM	8122	CA	PRO	B	290	59.360	98.887	75.635	1.00	40.02
ATOM	8123	C	PRO	B	290	59.585	99.298	74.214	1.00	39.92
ATOM	8124	O	PRO	B	290	59.813	98.446	73.349	1.00	39.32
ATOM	8125	CB	PRO	B	290	60.715	98.623	76.252	1.00	39.94
ATOM	8126	CG	PRO	B	290	60.505	97.448	77.064	1.00	41.06
ATOM	8127	CD	PRO	B	290	59.495	96.588	76.401	1.00	39.84
ATOM	8128	N	ALA	B	291	59.581	100.608	74.000	1.00	40.03
ATOM	8129	CA	ALA	B	291	59.780	101.186	72.681	1.00	39.44
ATOM	8130	C	ALA	B	291	61.023	100.669	72.001	1.00	38.45
ATOM	8131	O	ALA	B	291	61.044	100.531	70.790	1.00	38.60
ATOM	8132	CB	ALA	B	291	59.821	102.699	72.782	1.00	40.01
ATOM	8133	N	SER	B	292	62.071	100.368	72.744	1.00	37.54
ATOM	8134	CA	SER	B	292	63.264	99.846	72.072	1.00	37.26
ATOM	8135	C	SER	B	292	63.037	98.425	71.450	1.00	36.81
ATOM	8136	O	SER	B	292	63.881	97.924	70.690	1.00	35.22
ATOM	8137	CB	SER	B	292	64.418	99.814	73.031	1.00	37.00
ATOM	8138	OG	SER	B	292	64.198	98.820	73.985	1.00	37.49
ATOM	8139	N	MET	B	293	61.908	97.792	71.785	1.00	36.22
ATOM	8140	CA	MET	B	293	61.491	96.538	71.134	1.00	36.74
ATOM	8141	C	MET	B	293	60.449	96.774	70.041	1.00	37.20
ATOM	8142	O	MET	B	293	60.458	96.103	69.015	1.00	37.42
ATOM	8143	CB	MET	B	293	60.894	95.562	72.165	1.00	35.93
ATOM	8144	CG	MET	B	293	61.900	95.069	73.167	1.00	35.10
ATOM	8145	SD	MET	B	293	63.060	93.932	72.473	1.00	33.78
ATOM	8146	CE	MET	B	293	64.400	94.091	73.586	1.00	36.67
ATOM	8147	N	LEU	B	294	59.524	97.705	70.268	1.00	38.14
ATOM	8148	CA	LEU	B	294	58.458	97.958	69.305	1.00	38.99
ATOM	8149	C	LEU	B	294	59.023	98.512	67.991	1.00	39.37
ATOM	8150	O	LEU	B	294	58.341	98.590	66.995	1.00	39.80
ATOM	8151	CB	LEU	B	294	57.433	98.903	69.887	1.00	39.18
ATOM	8152	CG	LEU	B	294	56.705	98.329	71.123	1.00	41.58
ATOM	8153	CD1	LEU	B	294	55.889	99.401	71.811	1.00	40.69
ATOM	8154	CD2	LEU	B	294	55.799	97.135	70.762	1.00	41.80
ATOM	8155	N	ILE	B	295	60.271	98.926	68.034	1.00	39.37
ATOM	8156	CA	ILE	B	295	61.001	99.382	66.872	1.00	40.16
ATOM	8157	C	ILE	B	295	60.918	98.331	65.744	1.00	39.08
ATOM	8158	O	ILE	B	295	60.846	98.695	64.579	1.00	38.34
ATOM	8159	CB	ILE	B	295	62.441	99.617	67.359	1.00	40.97
ATOM	8160	CG1	ILE	B	295	63.505	99.653	66.286	1.00	43.52
ATOM	8161	CG2	ILE	B	295	62.868	98.483	68.240	1.00	41.91
ATOM	8162	CD1	ILE	B	295	64.938	99.846	66.952	1.00	45.53
ATOM	8163	N	GLY	B	296	60.916	97.040	66.097	1.00	37.48
ATOM	8164	CA	GLY	B	296	60.843	95.967	65.105	1.00	37.13
ATOM	8165	C	GLY	B	296	60.356	94.616	65.635	1.00	35.92
ATOM	8166	O	GLY	B	296	59.589	94.573	66.582	1.00	35.78
ATOM	8167	N	ASP	B	297	60.779	93.521	65.013	1.00	34.38
ATOM	8168	CA	ASP	B	297	60.367	92.200	65.458	1.00	33.95
ATOM	8169	C	ASP	B	297	61.055	91.884	66.815	1.00	32.55
ATOM	8170	O	ASP	B	297	62.251	92.111	66.986	1.00	32.71
ATOM	8171	CB	ASP	B	297	60.769	91.133	64.431	1.00	34.16
ATOM	8172	CG	ASP	B	297	59.768	90.974	63.284	1.00	35.85
ATOM	8173	OD1	ASP	B	297	58.741	91.689	63.212	1.00	38.80
ATOM	8174	OD2	ASP	B	297	59.939	90.109	62.401	1.00	38.68
ATOM	8175	N	HIS	B	298	60.312	91.350	67.759	1.00	30.55
ATOM	8176	CA	HIS	B	298	60.874	91.004	69.054	1.00	30.71

ATOM	8177	C	HIS	B	298	60.130	89.772	69.621	1.00	29.76
ATOM	8178	O	HIS	B	298	59.090	89.365	69.063	1.00	27.72
ATOM	8179	CB	HIS	B	298	60.714	92.206	70.014	1.00	30.05
ATOM	8180	CG	HIS	B	298	59.328	92.743	70.019	1.00	31.67
ATOM	8181	ND1	HIS	B	298	58.289	92.093	70.651	1.00	32.69
ATOM	8182	CD2	HIS	B	298	58.778	93.807	69.387	1.00	32.54
ATOM	8183	CE1	HIS	B	298	57.165	92.763	70.445	1.00	33.57
ATOM	8184	NE2	HIS	B	298	57.433	93.807	69.682	1.00	32.79
ATOM	8185	N	TYR	B	299	60.646	89.263	70.761	1.00	28.58
ATOM	8186	CA	TYR	B	299	60.088	88.128	71.506	1.00	27.63
ATOM	8187	C	TYR	B	299	59.928	88.447	72.996	1.00	27.71
ATOM	8188	O	TYR	B	299	60.705	89.211	73.574	1.00	26.61
ATOM	8189	CB	TYR	B	299	61.044	86.939	71.462	1.00	27.77
ATOM	8190	CG	TYR	B	299	61.450	86.482	70.086	1.00	26.03
ATOM	8191	CD1	TYR	B	299	60.543	85.858	69.243	1.00	25.67
ATOM	8192	CD2	TYR	B	299	62.746	86.682	69.632	1.00	24.84
ATOM	8193	CE1	TYR	B	299	60.930	85.444	67.989	1.00	27.49
ATOM	8194	CE2	TYR	B	299	63.137	86.274	68.382	1.00	25.15
ATOM	8195	CZ	TYR	B	299	62.236	85.657	67.561	1.00	25.06
ATOM	8196	OH	TYR	B	299	62.642	85.223	66.324	1.00	24.17
ATOM	8197	N	LEU	B	300	58.941	87.821	73.619	1.00	28.49
ATOM	8198	CA	LEU	B	300	58.779	87.852	75.055	1.00	28.84
ATOM	8199	C	LEU	B	300	59.562	86.601	75.450	1.00	29.14
ATOM	8200	O	LEU	B	300	59.231	85.527	74.992	1.00	27.77
ATOM	8201	CB	LEU	B	300	57.322	87.707	75.434	1.00	29.23
ATOM	8202	CG	LEU	B	300	56.811	88.266	76.750	1.00	32.12
ATOM	8203	CD1	LEU	B	300	55.589	87.482	77.288	1.00	32.90
ATOM	8204	CD2	LEU	B	300	57.835	88.324	77.774	1.00	32.13
ATOM	8205	N	CYS	B	301	60.597	86.728	76.272	1.00	29.52
ATOM	8206	CA	CYS	B	301	61.468	85.588	76.511	1.00	31.07
ATOM	8207	C	CYS	B	301	61.295	85.042	78.009	1.00	33.70
ATOM	8208	O	CYS	B	301	61.457	83.843	78.255	1.00	35.22
ATOM	8209	CB	CYS	B	301	62.955	85.890	75.934	1.00	31.26
ATOM	8210	SG	CYS	B	301	63.459	85.226	74.152	1.00	27.63
ATOM	8211	N	ASP	B	302	60.840	85.858	78.975	1.00	35.00
ATOM	8212	CA	ASP	B	302	60.731	85.433	80.390	1.00	35.86
ATOM	8213	C	ASP	B	302	59.799	86.343	81.231	1.00	34.62
ATOM	8214	O	ASP	B	302	59.860	87.545	81.093	1.00	34.73
ATOM	8215	CB	ASP	B	302	62.139	85.511	81.022	1.00	37.25
ATOM	8216	CG	ASP	B	302	62.420	84.378	81.981	1.00	41.73
ATOM	8217	OD1	ASP	B	302	61.930	84.430	83.144	1.00	44.78
ATOM	8218	OD2	ASP	B	302	63.155	83.394	81.660	1.00	49.19
ATOM	8219	N	VAL	B	303	58.955	85.778	82.098	1.00	33.21
ATOM	8220	CA	VAL	B	303	58.075	86.546	82.968	1.00	32.77
ATOM	8221	C	VAL	B	303	58.258	86.081	84.410	1.00	32.40
ATOM	8222	O	VAL	B	303	58.163	84.890	84.672	1.00	31.17
ATOM	8223	CB	VAL	B	303	56.578	86.310	82.680	1.00	33.24
ATOM	8224	CG1	VAL	B	303	55.759	87.164	83.572	1.00	32.91
ATOM	8225	CG2	VAL	B	303	56.218	86.597	81.232	1.00	33.73
ATOM	8226	N	THR	B	304	58.471	87.013	85.343	1.00	31.14
ATOM	8227	CA	THR	B	304	58.775	86.624	86.706	1.00	31.77
ATOM	8228	C	THR	B	304	58.112	87.603	87.658	1.00	31.80
ATOM	8229	O	THR	B	304	58.304	88.816	87.523	1.00	32.38
ATOM	8230	CB	THR	B	304	60.327	86.611	86.970	1.00	31.19
ATOM	8231	OG1	THR	B	304	60.992	85.722	86.057	1.00	32.47
ATOM	8232	CG2	THR	B	304	60.633	86.006	88.314	1.00	34.29
ATOM	8233	N	TRP	B	305	57.327	87.086	88.603	1.00	31.45
ATOM	8234	CA	TRP	B	305	56.718	87.935	89.617	1.00	31.62
ATOM	8235	C	TRP	B	305	57.811	88.187	90.637	1.00	31.10
ATOM	8236	O	TRP	B	305	58.330	87.248	91.154	1.00	31.07
ATOM	8237	CB	TRP	B	305	55.517	87.225	90.269	1.00	31.70
ATOM	8238	CG	TRP	B	305	54.311	87.317	89.468	1.00	31.84
ATOM	8239	CD1	TRP	B	305	53.852	86.405	88.560	1.00	33.39
ATOM	8240	CD2	TRP	B	305	53.406	88.424	89.410	1.00	31.59
ATOM	8241	NE1	TRP	B	305	52.711	86.879	87.959	1.00	31.28
ATOM	8242	CE2	TRP	B	305	52.419	88.116	88.470	1.00	31.64
ATOM	8243	CE3	TRP	B	305	53.335	89.644	90.057	1.00	33.06
ATOM	8244	CZ2	TRP	B	305	51.377	88.979	88.178	1.00	33.53
ATOM	8245	CZ3	TRP	B	305	52.286	90.497	89.770	1.00	34.48
ATOM	8246	CH2	TRP	B	305	51.323	90.160	88.853	1.00	32.18

ATOM	8247	N	ALA	B	306	58.217	89.433	90.864	1.00	31.93
ATOM	8248	CA	ALA	B	306	59.201	89.737	91.912	1.00	32.77
ATOM	8249	C	ALA	B	306	58.518	89.898	93.262	1.00	33.56
ATOM	8250	O	ALA	B	306	59.051	89.449	94.250	1.00	35.17
ATOM	8251	CB	ALA	B	306	59.980	90.949	91.575	1.00	32.78
ATOM	8252	N	THR	B	307	57.365	90.554	93.297	1.00	34.17
ATOM	8253	CA	THR	B	307	56.524	90.673	94.506	1.00	35.64
ATOM	8254	C	THR	B	307	55.055	90.588	94.074	1.00	36.27
ATOM	8255	O	THR	B	307	54.780	90.554	92.869	1.00	36.59
ATOM	8256	CB	THR	B	307	56.695	92.039	95.248	1.00	35.48
ATOM	8257	OG1	THR	B	307	56.206	93.080	94.416	1.00	34.55
ATOM	8258	CG2	THR	B	307	58.175	92.410	95.488	1.00	36.51
ATOM	8259	N	GLN	B	308	54.120	90.631	95.034	1.00	36.50
ATOM	8260	CA	GLN	B	308	52.690	90.608	94.714	1.00	36.66
ATOM	8261	C	GLN	B	308	52.351	91.765	93.762	1.00	36.45
ATOM	8262	O	GLN	B	308	51.316	91.743	93.107	1.00	36.23
ATOM	8263	CB	GLN	B	308	51.789	90.732	95.984	1.00	37.14
ATOM	8264	CG	GLN	B	308	52.147	89.883	97.215	1.00	37.08
ATOM	8265	CD	GLN	B	308	51.937	88.392	96.987	1.00	40.81
ATOM	8266	OE1	GLN	B	308	51.351	87.991	95.972	1.00	38.86
ATOM	8267	NE2	GLN	B	308	52.418	87.562	97.924	1.00	37.75
ATOM	8268	N	GLU	B	309	53.212	92.775	93.688	1.00	36.25
ATOM	8269	CA	GLU	B	309	52.907	93.966	92.883	1.00	36.43
ATOM	8270	C	GLU	B	309	53.954	94.349	91.879	1.00	35.70
ATOM	8271	O	GLU	B	309	53.939	95.485	91.363	1.00	35.36
ATOM	8272	CB	GLU	B	309	52.725	95.188	93.765	1.00	36.88
ATOM	8273	CG	GLU	B	309	51.746	94.973	94.891	1.00	41.29
ATOM	8274	CD	GLU	B	309	51.386	96.277	95.577	1.00	46.84
ATOM	8275	OE1	GLU	B	309	52.313	97.065	95.905	1.00	50.25
ATOM	8276	OE2	GLU	B	309	50.169	96.513	95.748	1.00	51.11
ATOM	8277	N	ARG	B	310	54.873	93.443	91.588	1.00	34.99
ATOM	8278	CA	ARG	B	310	55.907	93.777	90.620	1.00	34.77
ATOM	8279	C	ARG	B	310	56.220	92.582	89.759	1.00	34.15
ATOM	8280	O	ARG	B	310	56.494	91.501	90.272	1.00	34.19
ATOM	8281	CB	ARG	B	310	57.165	94.261	91.337	1.00	34.67
ATOM	8282	CG	ARG	B	310	58.381	94.291	90.481	1.00	34.36
ATOM	8283	CD	ARG	B	310	59.598	94.806	91.231	1.00	37.03
ATOM	8284	NE	ARG	B	310	59.478	96.236	91.473	1.00	38.15
ATOM	8285	CZ	ARG	B	310	60.277	96.964	92.226	1.00	40.61
ATOM	8286	NH1	ARG	B	310	60.038	98.258	92.349	1.00	42.04
ATOM	8287	NH2	ARG	B	310	61.298	96.422	92.870	1.00	41.05
ATOM	8288	N	ILE	B	311	56.158	92.800	88.453	1.00	33.58
ATOM	8289	CA	ILE	B	311	56.441	91.777	87.475	1.00	33.34
ATOM	8290	C	ILE	B	311	57.663	92.159	86.679	1.00	32.04
ATOM	8291	O	ILE	B	311	57.848	93.319	86.298	1.00	31.10
ATOM	8292	CB	ILE	B	311	55.290	91.632	86.488	1.00	33.75
ATOM	8293	CG1	ILE	B	311	53.962	91.831	87.171	1.00	36.32
ATOM	8294	CG2	ILE	B	311	55.320	90.264	85.828	1.00	33.59
ATOM	8295	CD1	ILE	B	311	52.812	91.743	86.200	1.00	38.06
ATOM	8296	N	SER	B	312	58.482	91.162	86.401	1.00	30.98
ATOM	8297	CA	SER	B	312	59.650	91.365	85.576	1.00	30.92
ATOM	8298	C	SER	B	312	59.436	90.700	84.218	1.00	30.94
ATOM	8299	O	SER	B	312	59.183	89.489	84.163	1.00	31.01
ATOM	8300	CB	SER	B	312	60.824	90.703	86.242	1.00	30.36
ATOM	8301	OG	SER	B	312	61.950	91.004	85.505	1.00	28.13
ATOM	8302	N	LEU	B	313	59.540	91.468	83.139	1.00	31.72
ATOM	8303	CA	LEU	B	313	59.361	90.929	81.780	1.00	31.65
ATOM	8304	C	LEU	B	313	60.658	91.067	81.018	1.00	31.48
ATOM	8305	O	LEU	B	313	61.245	92.154	80.953	1.00	31.36
ATOM	8306	CB	LEU	B	313	58.273	91.687	81.038	1.00	32.02
ATOM	8307	CG	LEU	B	313	56.897	91.696	81.697	1.00	33.58
ATOM	8308	CD1	LEU	B	313	56.013	92.618	80.928	1.00	33.88
ATOM	8309	CD2	LEU	B	313	56.267	90.298	81.757	1.00	35.31
ATOM	8310	N	GLN	B	314	61.129	89.979	80.454	1.00	30.90
ATOM	8311	CA	GLN	B	314	62.364	90.044	79.708	1.00	31.97
ATOM	8312	C	GLN	B	314	62.066	89.884	78.215	1.00	31.49
ATOM	8313	O	GLN	B	314	61.493	88.884	77.814	1.00	32.91
ATOM	8314	CB	GLN	B	314	63.364	89.018	80.210	1.00	31.34
ATOM	8315	CG	GLN	B	314	64.795	89.386	79.861	1.00	35.07
ATOM	8316	CD	GLN	B	314	65.863	88.543	80.626	1.00	35.88

ATOM	8317	OE1	GLN	B	314	67.037	88.877	80.607	1.00	37.83
ATOM	8318	NE2	GLN	B	314	65.443	87.481	81.274	1.00	36.84
ATOM	8319	N	TRP	B	315	62.408	90.904	77.437	1.00	30.58
ATOM	8320	CA	TRP	B	315	62.148	90.949	76.010	1.00	30.91
ATOM	8321	C	TRP	B	315	63.425	90.754	75.234	1.00	29.95
ATOM	8322	O	TRP	B	315	64.484	91.034	75.744	1.00	31.13
ATOM	8323	CB	TRP	B	315	61.521	92.302	75.597	1.00	30.37
ATOM	8324	CG	TRP	B	315	60.236	92.639	76.303	1.00	31.01
ATOM	8325	CD1	TRP	B	315	60.102	93.311	77.494	1.00	32.19
ATOM	8326	CD2	TRP	B	315	58.904	92.327	75.881	1.00	30.33
ATOM	8327	NE1	TRP	B	315	58.777	93.424	77.820	1.00	30.77
ATOM	8328	CE2	TRP	B	315	58.025	92.848	76.839	1.00	29.77
ATOM	8329	CE3	TRP	B	315	58.365	91.655	74.776	1.00	31.81
ATOM	8330	CZ2	TRP	B	315	56.646	92.716	76.741	1.00	32.04
ATOM	8331	CZ3	TRP	B	315	57.014	91.527	74.681	1.00	31.97
ATOM	8332	CH2	TRP	B	315	56.162	92.050	75.655	1.00	31.73
ATOM	8333	N	LEU	B	316	63.319	90.296	73.996	1.00	29.83
ATOM	8334	CA	LEU	B	316	64.495	90.080	73.131	1.00	31.28
ATOM	8335	C	LEU	B	316	64.189	90.512	71.687	1.00	31.65
ATOM	8336	O	LEU	B	316	63.095	90.273	71.174	1.00	31.45
ATOM	8337	CB	LEU	B	316	64.932	88.610	73.164	1.00	30.42
ATOM	8338	CG	LEU	B	316	66.108	88.062	72.350	1.00	33.06
ATOM	8339	CD1	LEU	B	316	67.422	88.670	72.724	1.00	34.47
ATOM	8340	CD2	LEU	B	316	66.158	86.509	72.506	1.00	34.10
ATOM	8341	N	ARG	B	317	65.147	91.171	71.047	1.00	33.19
ATOM	8342	CA	ARG	B	317	64.979	91.553	69.659	1.00	34.37
ATOM	8343	C	ARG	B	317	65.123	90.335	68.784	1.00	33.87
ATOM	8344	O	ARG	B	317	65.815	89.380	69.140	1.00	34.03
ATOM	8345	CB	ARG	B	317	65.996	92.625	69.277	1.00	36.07
ATOM	8346	CG	ARG	B	317	65.670	94.068	69.853	1.00	37.65
ATOM	8347	CD	ARG	B	317	66.288	95.194	68.990	1.00	38.57
ATOM	8348	NE	ARG	B	317	66.022	96.529	69.532	1.00	40.43
ATOM	8349	CZ	ARG	B	317	66.934	97.509	69.653	1.00	40.38
ATOM	8350	NH1	ARG	B	317	68.199	97.337	69.241	1.00	37.57
ATOM	8351	NH2	ARG	B	317	66.568	98.677	70.180	1.00	37.66
ATOM	8352	N	ARG	B	318	64.436	90.339	67.652	1.00	33.75
ATOM	8353	CA	ARG	B	318	64.582	89.259	66.696	1.00	33.76
ATOM	8354	C	ARG	B	318	66.031	89.091	66.348	1.00	34.27
ATOM	8355	O	ARG	B	318	66.533	87.974	66.209	1.00	35.49
ATOM	8356	CB	ARG	B	318	63.749	89.501	65.431	1.00	33.09
ATOM	8357	CG	ARG	B	318	63.566	88.230	64.624	1.00	32.42
ATOM	8358	CD	ARG	B	318	62.759	88.436	63.348	1.00	32.20
ATOM	8359	NE	ARG	B	318	62.754	87.234	62.545	1.00	31.52
ATOM	8360	CZ	ARG	B	318	61.754	86.850	61.757	1.00	26.85
ATOM	8361	NH1	ARG	B	318	60.670	87.581	61.616	1.00	25.05
ATOM	8362	NH2	ARG	B	318	61.859	85.718	61.113	1.00	27.58
ATOM	8363	N	ILE	B	319	66.721	90.187	66.138	1.00	35.43
ATOM	8364	CA	ILE	B	319	68.178	90.117	66.032	1.00	36.02
ATOM	8365	C	ILE	B	319	68.609	89.953	67.496	1.00	35.99
ATOM	8366	O	ILE	B	319	68.636	90.912	68.248	1.00	36.06
ATOM	8367	CB	ILE	B	319	68.699	91.387	65.382	1.00	36.52
ATOM	8368	CG1	ILE	B	319	68.314	91.373	63.903	1.00	39.38
ATOM	8369	CG2	ILE	B	319	70.197	91.477	65.464	1.00	38.69
ATOM	8370	CD1	ILE	B	319	68.390	92.774	63.236	1.00	42.38
ATOM	8371	N	GLN	B	320	68.944	88.730	67.889	1.00	35.86
ATOM	8372	CA	GLN	B	320	69.067	88.366	69.300	1.00	36.22
ATOM	8373	C	GLN	B	320	70.372	88.820	69.962	1.00	36.74
ATOM	8374	O	GLN	B	320	71.063	88.031	70.624	1.00	36.55
ATOM	8375	CB	GLN	B	320	68.848	86.863	69.443	1.00	35.91
ATOM	8376	CG	GLN	B	320	67.536	86.390	68.779	1.00	36.08
ATOM	8377	CD	GLN	B	320	67.310	84.878	68.855	1.00	37.12
ATOM	8378	OE1	GLN	B	320	67.791	84.200	69.778	1.00	33.28
ATOM	8379	NE2	GLN	B	320	66.569	84.344	67.870	1.00	37.03
ATOM	8380	N	ASN	B	321	70.603	90.124	69.816	1.00	36.83
ATOM	8381	CA	ASN	B	321	71.791	90.866	70.229	1.00	37.99
ATOM	8382	C	ASN	B	321	71.561	91.766	71.422	1.00	36.96
ATOM	8383	O	ASN	B	321	72.496	92.360	71.978	1.00	36.20
ATOM	8384	CB	ASN	B	321	72.175	91.860	69.080	1.00	37.62
ATOM	8385	CG	ASN	B	321	73.398	91.459	68.385	1.00	41.47
ATOM	8386	OD1	ASN	B	321	74.024	90.479	68.794	1.00	51.40

ATOM	8387	ND2	ASN	B	321	73.790	92.188	67.323	1.00	45.34
ATOM	8388	N	TYR	B	322	70.294	91.917	71.760	1.00	37.02
ATOM	8389	CA	TYR	B	322	69.881	92.994	72.619	1.00	36.16
ATOM	8390	C	TYR	B	322	68.657	92.554	73.355	1.00	35.83
ATOM	8391	O	TYR	B	322	67.706	92.077	72.751	1.00	36.21
ATOM	8392	CB	TYR	B	322	69.586	94.207	71.703	1.00	36.28
ATOM	8393	CG	TYR	B	322	69.327	95.521	72.410	1.00	35.45
ATOM	8394	CD1	TYR	B	322	70.357	96.402	72.714	1.00	35.79
ATOM	8395	CD2	TYR	B	322	68.062	95.876	72.761	1.00	35.35
ATOM	8396	CE1	TYR	B	322	70.102	97.614	73.393	1.00	35.68
ATOM	8397	CE2	TYR	B	322	67.799	97.071	73.418	1.00	37.85
ATOM	8398	CZ	TYR	B	322	68.822	97.938	73.726	1.00	37.94
ATOM	8399	OH	TYR	B	322	68.509	99.110	74.380	1.00	39.12
ATOM	8400	N	SER	B	323	68.690	92.688	74.672	1.00	34.97
ATOM	8401	CA	SER	B	323	67.581	92.350	75.511	1.00	34.88
ATOM	8402	C	SER	B	323	67.423	93.386	76.600	1.00	34.54
ATOM	8403	O	SER	B	323	68.352	94.026	77.047	1.00	33.93
ATOM	8404	CB	SER	B	323	67.725	90.979	76.161	1.00	34.56
ATOM	8405	OG	SER	B	323	68.860	90.954	76.990	1.00	36.68
ATOM	8406	N	VAL	B	324	66.200	93.470	77.043	1.00	34.54
ATOM	8407	CA	VAL	B	324	65.787	94.427	77.996	1.00	34.86
ATOM	8408	C	VAL	B	324	64.873	93.729	78.955	1.00	35.00
ATOM	8409	O	VAL	B	324	63.910	93.100	78.542	1.00	35.60
ATOM	8410	CB	VAL	B	324	64.969	95.495	77.261	1.00	34.19
ATOM	8411	CG1	VAL	B	324	64.281	96.374	78.220	1.00	34.10
ATOM	8412	CG2	VAL	B	324	65.874	96.292	76.361	1.00	35.00
ATOM	8413	N	MET	B	325	65.165	93.885	80.226	1.00	35.13
ATOM	8414	CA	MET	B	325	64.326	93.430	81.296	1.00	36.34
ATOM	8415	C	MET	B	325	63.537	94.679	81.759	1.00	36.30
ATOM	8416	O	MET	B	325	64.130	95.719	82.062	1.00	35.13
ATOM	8417	CB	MET	B	325	65.227	92.906	82.409	1.00	37.09
ATOM	8418	CG	MET	B	325	64.619	91.939	83.381	1.00	40.89
ATOM	8419	SD	MET	B	325	65.964	91.400	84.519	1.00	44.02
ATOM	8420	CE	MET	B	325	65.131	91.287	85.946	1.00	41.92
ATOM	8421	N	ASP	B	326	62.206	94.579	81.759	1.00	36.01
ATOM	8422	CA	ASP	B	326	61.339	95.665	82.167	1.00	36.76
ATOM	8423	C	ASP	B	326	60.755	95.336	83.531	1.00	36.82
ATOM	8424	O	ASP	B	326	60.292	94.218	83.763	1.00	36.86
ATOM	8425	CB	ASP	B	326	60.186	95.785	81.196	1.00	37.27
ATOM	8426	CG	ASP	B	326	59.940	97.198	80.757	1.00	40.61
ATOM	8427	OD1	ASP	B	326	60.662	98.086	81.246	1.00	43.19
ATOM	8428	OD2	ASP	B	326	59.061	97.507	79.914	1.00	42.90
ATOM	8429	N	ILE	B	327	60.748	96.302	84.424	1.00	36.94
ATOM	8430	CA	ILE	B	327	60.206	96.073	85.740	1.00	37.80
ATOM	8431	C	ILE	B	327	58.933	96.886	85.884	1.00	38.50
ATOM	8432	O	ILE	B	327	58.924	98.104	85.704	1.00	38.44
ATOM	8433	CB	ILE	B	327	61.269	96.361	86.767	1.00	38.09
ATOM	8434	CG1	ILE	B	327	62.305	95.246	86.660	1.00	38.18
ATOM	8435	CG2	ILE	B	327	60.678	96.341	88.167	1.00	38.82
ATOM	8436	CD1	ILE	B	327	63.637	95.704	86.910	1.00	41.48
ATOM	8437	N	CYS	B	328	57.843	96.182	86.157	1.00	39.11
ATOM	8438	CA	CYS	B	328	56.525	96.784	86.136	1.00	40.17
ATOM	8439	C	CYS	B	328	55.810	96.662	87.478	1.00	40.31
ATOM	8440	O	CYS	B	328	55.657	95.574	88.012	1.00	39.11
ATOM	8441	CB	CYS	B	328	55.695	96.150	85.052	1.00	39.94
ATOM	8442	SG	CYS	B	328	56.529	96.102	83.429	1.00	43.57
ATOM	8443	N	ASP	B	329	55.339	97.803	87.971	1.00	41.37
ATOM	8444	CA	ASP	B	329	54.739	97.898	89.300	1.00	42.47
ATOM	8445	C	ASP	B	329	53.266	98.195	89.268	1.00	43.58
ATOM	8446	O	ASP	B	329	52.818	99.060	88.512	1.00	43.63
ATOM	8447	CB	ASP	B	329	55.442	98.978	90.099	1.00	41.46
ATOM	8448	CG	ASP	B	329	56.810	98.539	90.582	1.00	43.42
ATOM	8449	OD1	ASP	B	329	57.151	97.335	90.435	1.00	42.36
ATOM	8450	OD2	ASP	B	329	57.622	99.334	91.110	1.00	45.24
ATOM	8451	N	TYR	B	330	52.509	97.463	90.068	1.00	45.51
ATOM	8452	CA	TYR	B	330	51.080	97.712	90.145	1.00	48.06
ATOM	8453	C	TYR	B	330	50.792	99.073	90.787	1.00	49.73
ATOM	8454	O	TYR	B	330	51.414	99.436	91.778	1.00	48.59
ATOM	8455	CB	TYR	B	330	50.361	96.626	90.924	1.00	48.00
ATOM	8456	CG	TYR	B	330	48.883	96.872	90.940	1.00	49.60

ATOM	8457	CD1	TYR	B	330	48.186	97.056	89.750	1.00	52.40
ATOM	8458	CD2	TYR	B	330	48.182	96.962	92.132	1.00	49.68
ATOM	8459	CE1	TYR	B	330	46.829	97.307	89.752	1.00	51.02
ATOM	8460	CE2	TYR	B	330	46.831	97.198	92.141	1.00	51.01
ATOM	8461	CZ	TYR	B	330	46.170	97.381	90.947	1.00	50.55
ATOM	8462	OH	TYR	B	330	44.838	97.637	90.945	1.00	52.45
ATOM	8463	N	ASP	B	331	49.863	99.826	90.199	1.00	52.21
ATOM	8464	CA	ASP	B	331	49.489	101.142	90.731	1.00	54.21
ATOM	8465	C	ASP	B	331	48.147	101.135	91.443	1.00	55.17
ATOM	8466	O	ASP	B	331	47.102	101.105	90.809	1.00	54.64
ATOM	8467	CB	ASP	B	331	49.425	102.188	89.616	1.00	54.82
ATOM	8468	CG	ASP	B	331	49.389	103.623	90.159	1.00	56.20
ATOM	8469	OD1	ASP	B	331	49.417	103.797	91.402	1.00	57.58
ATOM	8470	OD2	ASP	B	331	49.333	104.630	89.417	1.00	55.34
ATOM	8471	N	GLU	B	332	48.207	101.164	92.764	1.00	57.04
ATOM	8472	CA	GLU	B	332	47.033	101.259	93.634	1.00	58.48
ATOM	8473	C	GLU	B	332	45.973	102.249	93.098	1.00	58.60
ATOM	8474	O	GLU	B	332	44.781	101.938	93.040	1.00	58.62
ATOM	8475	CB	GLU	B	332	47.508	101.647	95.064	1.00	59.12
ATOM	8476	CG	GLU	B	332	47.186	103.075	95.550	1.00	61.50
ATOM	8477	CD	GLU	B	332	48.209	103.648	96.544	1.00	63.70
ATOM	8478	OE1	GLU	B	332	48.425	103.040	97.621	1.00	63.97
ATOM	8479	OE2	GLU	B	332	48.785	104.733	96.254	1.00	64.40
ATOM	8480	N	SER	B	333	46.427	103.424	92.677	1.00	59.26
ATOM	8481	CA	SER	B	333	45.549	104.481	92.182	1.00	59.33
ATOM	8482	C	SER	B	333	44.928	104.118	90.856	1.00	59.48
ATOM	8483	O	SER	B	333	43.722	103.946	90.745	1.00	60.00
ATOM	8484	CB	SER	B	333	46.337	105.789	91.992	1.00	59.31
ATOM	8485	OG	SER	B	333	46.801	106.327	93.225	1.00	59.60
ATOM	8486	N	SER	B	334	45.779	104.027	89.841	1.00	59.75
ATOM	8487	CA	SER	B	334	45.358	103.794	88.464	1.00	59.29
ATOM	8488	C	SER	B	334	44.758	102.424	88.202	1.00	58.62
ATOM	8489	O	SER	B	334	43.925	102.277	87.321	1.00	58.94
ATOM	8490	CB	SER	B	334	46.570	103.984	87.535	1.00	59.95
ATOM	8491	OG	SER	B	334	46.844	102.813	86.757	1.00	60.68
ATOM	8492	N	GLY	B	335	45.177	101.424	88.966	1.00	57.60
ATOM	8493	CA	GLY	B	335	44.808	100.056	88.676	1.00	56.75
ATOM	8494	C	GLY	B	335	45.530	99.590	87.413	1.00	55.98
ATOM	8495	O	GLY	B	335	45.144	98.612	86.786	1.00	55.77
ATOM	8496	N	ARG	B	336	46.559	100.312	87.001	1.00	55.26
ATOM	8497	CA	ARG	B	336	47.340	99.878	85.849	1.00	55.10
ATOM	8498	C	ARG	B	336	48.786	99.564	86.214	1.00	53.48
ATOM	8499	O	ARG	B	336	49.166	99.575	87.390	1.00	53.40
ATOM	8500	CB	ARG	B	336	47.220	100.861	84.686	1.00	55.82
ATOM	8501	CG	ARG	B	336	45.872	100.694	83.991	1.00	58.15
ATOM	8502	CD	ARG	B	336	45.589	101.645	82.855	1.00	62.20
ATOM	8503	NE	ARG	B	336	44.205	101.486	82.401	1.00	65.16
ATOM	8504	CZ	ARG	B	336	43.836	100.932	81.248	1.00	67.78
ATOM	8505	NH1	ARG	B	336	44.748	100.482	80.388	1.00	67.72
ATOM	8506	NH2	ARG	B	336	42.540	100.829	80.952	1.00	67.74
ATOM	8507	N	TRP	B	337	49.579	99.242	85.209	1.00	51.65
ATOM	8508	CA	TRP	B	337	50.931	98.806	85.452	1.00	50.02
ATOM	8509	C	TRP	B	337	51.925	99.718	84.765	1.00	50.23
ATOM	8510	O	TRP	B	337	51.857	99.882	83.556	1.00	50.77
ATOM	8511	CB	TRP	B	337	51.077	97.379	84.940	1.00	49.16
ATOM	8512	CG	TRP	B	337	50.349	96.355	85.753	1.00	44.51
ATOM	8513	CD1	TRP	B	337	49.075	95.930	85.582	1.00	39.99
ATOM	8514	CD2	TRP	B	337	50.869	95.618	86.868	1.00	39.72
ATOM	8515	NE1	TRP	B	337	48.767	94.970	86.514	1.00	38.99
ATOM	8516	CE2	TRP	B	337	49.860	94.757	87.310	1.00	39.18
ATOM	8517	CE3	TRP	B	337	52.090	95.593	87.521	1.00	37.17
ATOM	8518	CZ2	TRP	B	337	50.033	93.896	88.373	1.00	39.08
ATOM	8519	CZ3	TRP	B	337	52.270	94.735	88.557	1.00	37.64
ATOM	8520	CH2	TRP	B	337	51.247	93.898	88.983	1.00	38.93
ATOM	8521	N	ASN	B	338	52.842	100.302	85.541	1.00	49.98
ATOM	8522	CA	ASN	B	338	53.878	101.208	85.024	1.00	49.89
ATOM	8523	C	ASN	B	338	55.257	100.575	85.007	1.00	49.40
ATOM	8524	O	ASN	B	338	55.649	99.926	85.961	1.00	49.36
ATOM	8525	CB	ASN	B	338	53.944	102.484	85.865	1.00	49.80
ATOM	8526	CG	ASN	B	338	52.696	103.329	85.718	1.00	51.11

ATOM	8527	OD1	ASN	B	338	52.312	103.707	84.587	1.00	50.56
ATOM	8528	ND2	ASN	B	338	52.030	103.611	86.847	1.00	47.68
ATOM	8529	N	CYS	B	339	55.961	100.768	83.905	1.00	49.38
ATOM	8530	CA	CYS	B	339	57.289	100.212	83.685	1.00	49.73
ATOM	8531	C	CYS	B	339	58.205	101.408	83.455	1.00	50.11
ATOM	8532	O	CYS	B	339	58.305	101.916	82.340	1.00	50.56
ATOM	8533	CB	CYS	B	339	57.337	99.255	82.452	1.00	49.43
ATOM	8534	SG	CYS	B	339	56.155	97.857	82.365	1.00	47.42
ATOM	8535	N	LEU	B	340	58.848	101.876	84.520	1.00	50.25
ATOM	8536	CA	LEU	B	340	59.744	103.020	84.431	1.00	50.41
ATOM	8537	C	LEU	B	340	60.955	102.752	83.556	1.00	50.03
ATOM	8538	O	LEU	B	340	61.773	101.891	83.832	1.00	49.59
ATOM	8539	CB	LEU	B	340	60.216	103.430	85.825	1.00	51.05
ATOM	8540	CG	LEU	B	340	59.748	104.746	86.446	1.00	52.01
ATOM	8541	CD1	LEU	B	340	58.249	104.940	86.344	1.00	54.40
ATOM	8542	CD2	LEU	B	340	60.184	104.750	87.902	1.00	53.37
ATOM	8543	N	VAL	B	341	61.081	103.541	82.506	1.00	50.16
ATOM	8544	CA	VAL	B	341	62.188	103.400	81.585	1.00	50.23
ATOM	8545	C	VAL	B	341	63.565	103.419	82.240	1.00	49.64
ATOM	8546	O	VAL	B	341	64.471	102.692	81.817	1.00	49.50
ATOM	8547	CB	VAL	B	341	62.143	104.493	80.532	1.00	50.32
ATOM	8548	CG1	VAL	B	341	63.501	104.623	79.847	1.00	50.95
ATOM	8549	CG2	VAL	B	341	61.020	104.205	79.513	1.00	51.51
ATOM	8550	N	ALA	B	342	63.746	104.222	83.275	1.00	48.96
ATOM	8551	CA	ALA	B	342	65.083	104.348	83.826	1.00	48.51
ATOM	8552	C	ALA	B	342	65.420	103.128	84.638	1.00	47.95
ATOM	8553	O	ALA	B	342	66.568	102.921	85.011	1.00	48.49
ATOM	8554	CB	ALA	B	342	65.232	105.631	84.654	1.00	48.86
ATOM	8555	N	ARG	B	343	64.434	102.278	84.875	1.00	47.01
ATOM	8556	CA	ARG	B	343	64.668	101.083	85.687	1.00	46.47
ATOM	8557	C	ARG	B	343	64.755	99.795	84.816	1.00	45.21
ATOM	8558	O	ARG	B	343	64.712	98.683	85.302	1.00	44.07
ATOM	8559	CB	ARG	B	343	63.614	101.071	86.782	1.00	46.53
ATOM	8560	CG	ARG	B	343	63.260	99.809	87.425	1.00	47.76
ATOM	8561	CD	ARG	B	343	61.939	99.939	88.173	1.00	49.49
ATOM	8562	NE	ARG	B	343	62.057	100.749	89.374	1.00	51.13
ATOM	8563	CZ	ARG	B	343	61.039	101.378	89.974	1.00	53.68
ATOM	8564	NH1	ARG	B	343	59.819	101.320	89.455	1.00	54.07
ATOM	8565	NH2	ARG	B	343	61.241	102.078	91.093	1.00	52.56
ATOM	8566	N	GLN	B	344	64.920	99.987	83.517	1.00	44.33
ATOM	8567	CA	GLN	B	344	65.117	98.889	82.586	1.00	43.95
ATOM	8568	C	GLN	B	344	66.514	98.317	82.736	1.00	43.83
ATOM	8569	O	GLN	B	344	67.463	99.061	82.880	1.00	43.78
ATOM	8570	CB	GLN	B	344	64.986	99.396	81.122	1.00	43.32
ATOM	8571	CG	GLN	B	344	63.550	99.535	80.623	1.00	43.47
ATOM	8572	CD	GLN	B	344	63.419	100.271	79.278	1.00	41.94
ATOM	8573	OE1	GLN	B	344	64.364	100.388	78.534	1.00	39.19
ATOM	8574	NE2	GLN	B	344	62.230	100.727	78.979	1.00	43.55
ATOM	8575	N	HIS	B	345	66.664	97.003	82.683	1.00	44.19
ATOM	8576	CA	HIS	B	345	68.009	96.443	82.590	1.00	44.32
ATOM	8577	C	HIS	B	345	68.256	95.843	81.221	1.00	43.03
ATOM	8578	O	HIS	B	345	67.430	95.099	80.700	1.00	43.19
ATOM	8579	CB	HIS	B	345	68.320	95.537	83.760	1.00	44.46
ATOM	8580	CG	HIS	B	345	68.718	96.323	84.975	1.00	49.00
ATOM	8581	ND1	HIS	B	345	67.873	96.529	86.048	1.00	52.36
ATOM	8582	CD2	HIS	B	345	69.851	97.019	85.246	1.00	51.01
ATOM	8583	CE1	HIS	B	345	68.486	97.279	86.948	1.00	54.64
ATOM	8584	NE2	HIS	B	345	69.683	97.597	86.480	1.00	54.56
ATOM	8585	N	ILE	B	346	69.396	96.226	80.648	1.00	41.59
ATOM	8586	CA	ILE	B	346	69.757	95.956	79.267	1.00	41.02
ATOM	8587	C	ILE	B	346	70.982	95.099	79.127	1.00	40.37
ATOM	8588	O	ILE	B	346	71.973	95.327	79.790	1.00	40.33
ATOM	8589	CB	ILE	B	346	70.050	97.301	78.577	1.00	41.46
ATOM	8590	CG1	ILE	B	346	68.815	98.189	78.604	1.00	42.09
ATOM	8591	CG2	ILE	B	346	70.507	97.096	77.141	1.00	41.20
ATOM	8592	CD1	ILE	B	346	69.057	99.578	78.042	1.00	43.90
ATOM	8593	N	GLU	B	347	70.910	94.080	78.292	1.00	40.45
ATOM	8594	CA	GLU	B	347	72.074	93.254	78.001	1.00	41.42
ATOM	8595	C	GLU	B	347	72.243	93.244	76.498	1.00	42.11
ATOM	8596	O	GLU	B	347	71.252	93.214	75.761	1.00	41.58

ATOM	8597	CB	GLU	B	347	71.909	91.820	78.463	1.00 41.54
ATOM	8598	CG	GLU	B	347	71.613	91.647	79.925	1.00 42.14
ATOM	8599	CD	GLU	B	347	71.340	90.199	80.249	1.00 42.92
ATOM	8600	OE1	GLU	B	347	71.894	89.339	79.524	1.00 40.30
ATOM	8601	OE2	GLU	B	347	70.611	89.932	81.245	1.00 43.22
ATOM	8602	N	MET	B	348	73.497	93.293	76.063	1.00 42.77
ATOM	8603	CA	MET	B	348	73.847	93.338	74.670	1.00 43.61
ATOM	8604	C	MET	B	348	75.009	92.412	74.520	1.00 43.46
ATOM	8605	O	MET	B	348	75.694	92.113	75.477	1.00 41.97
ATOM	8606	CB	MET	B	348	74.345	94.728	74.243	1.00 44.65
ATOM	8607	CG	MET	B	348	73.612	95.910	74.808	1.00 47.60
ATOM	8608	SD	MET	B	348	73.971	97.448	73.889	1.00 54.54
ATOM	8609	CE	MET	B	348	73.036	98.636	74.807	1.00 55.02
ATOM	8610	N	SER	B	349	75.240	91.944	73.312	1.00 44.14
ATOM	8611	CA	SER	B	349	76.439	91.164	73.078	1.00 45.08
ATOM	8612	C	SER	B	349	77.087	91.677	71.836	1.00 45.42
ATOM	8613	O	SER	B	349	76.417	92.017	70.862	1.00 45.19
ATOM	8614	CB	SER	B	349	76.131	89.677	72.911	1.00 45.44
ATOM	8615	OG	SER	B	349	77.328	88.900	72.852	1.00 45.77
ATOM	8616	N	THR	B	350	78.403	91.742	71.876	1.00 46.25
ATOM	8617	CA	THR	B	350	79.156	92.062	70.682	1.00 46.88
ATOM	8618	C	THR	B	350	79.737	90.764	70.158	1.00 46.10
ATOM	8619	O	THR	B	350	79.806	90.559	68.952	1.00 47.60
ATOM	8620	CB	THR	B	350	80.264	93.119	70.981	1.00 47.27
ATOM	8621	OG1	THR	B	350	79.877	94.396	70.448	1.00 48.80
ATOM	8622	CG2	THR	B	350	81.510	92.828	70.216	1.00 48.44
ATOM	8623	N	THR	B	351	80.103	89.867	71.065	1.00 44.83
ATOM	8624	CA	THR	B	351	80.770	88.623	70.704	1.00 44.31
ATOM	8625	C	THR	B	351	79.832	87.607	69.986	1.00 42.17
ATOM	8626	O	THR	B	351	80.258	86.796	69.166	1.00 41.47
ATOM	8627	CB	THR	B	351	81.387	88.060	72.004	1.00 45.00
ATOM	8628	OG1	THR	B	351	82.318	89.023	72.529	1.00 48.79
ATOM	8629	CG2	THR	B	351	82.282	86.861	71.767	1.00 46.07
ATOM	8630	N	GLY	B	352	78.542	87.671	70.267	1.00 39.36
ATOM	8631	CA	GLY	B	352	77.638	86.685	69.715	1.00 37.02
ATOM	8632	C	GLY	B	352	76.230	86.990	70.099	1.00 34.71
ATOM	8633	O	GLY	B	352	75.762	88.057	69.773	1.00 33.50
ATOM	8634	N	TRP	B	353	75.573	86.073	70.815	1.00 32.66
ATOM	8635	CA	TRP	B	353	74.176	86.260	71.159	1.00 31.41
ATOM	8636	C	TRP	B	353	73.994	86.437	72.646	1.00 31.25
ATOM	8637	O	TRP	B	353	74.958	86.404	73.415	1.00 31.98
ATOM	8638	CB	TRP	B	353	73.325	85.102	70.607	1.00 31.08
ATOM	8639	CG	TRP	B	353	73.819	83.802	71.120	1.00 28.71
ATOM	8640	CD1	TRP	B	353	73.403	83.170	72.216	1.00 27.12
ATOM	8641	CD2	TRP	B	353	74.843	83.009	70.563	1.00 25.31
ATOM	8642	NE1	TRP	B	353	74.118	82.023	72.394	1.00 26.82
ATOM	8643	CE2	TRP	B	353	74.998	81.898	71.373	1.00 25.30
ATOM	8644	CE3	TRP	B	353	75.624	83.105	69.428	1.00 22.97
ATOM	8645	CZ2	TRP	B	353	75.929	80.904	71.113	1.00 24.59
ATOM	8646	CZ3	TRP	B	353	76.557	82.129	69.184	1.00 23.91
ATOM	8647	CH2	TRP	B	353	76.694	81.039	70.020	1.00 20.31
ATOM	8648	N	VAL	B	354	72.771	86.682	73.074	1.00 31.63
ATOM	8649	CA	VAL	B	354	72.506	86.887	74.500	1.00 32.39
ATOM	8650	C	VAL	B	354	72.115	85.591	75.189	1.00 32.75
ATOM	8651	O	VAL	B	354	71.120	85.006	74.814	1.00 32.29
ATOM	8652	CB	VAL	B	354	71.338	87.819	74.701	1.00 32.04
ATOM	8653	CG1	VAL	B	354	71.114	88.057	76.202	1.00 32.87
ATOM	8654	CG2	VAL	B	354	71.593	89.112	73.948	1.00 33.99
ATOM	8655	N	GLY	B	355	72.887	85.167	76.189	1.00 31.57
ATOM	8656	CA	GLY	B	355	72.635	83.934	76.909	1.00 32.00
ATOM	8657	C	GLY	B	355	73.115	82.677	76.207	1.00 32.28
ATOM	8658	O	GLY	B	355	73.858	82.730	75.246	1.00 32.47
ATOM	8659	N	ARG	B	356	72.718	81.525	76.715	1.00 33.25
ATOM	8660	CA	ARG	B	356	73.065	80.266	76.074	1.00 34.63
ATOM	8661	C	ARG	B	356	72.014	79.978	75.026	1.00 34.42
ATOM	8662	O	ARG	B	356	72.204	80.281	73.864	1.00 35.19
ATOM	8663	CB	ARG	B	356	73.173	79.159	77.121	1.00 34.64
ATOM	8664	CG	ARG	B	356	74.475	79.292	77.933	1.00 35.41
ATOM	8665	CD	ARG	B	356	74.571	78.329	79.080	1.00 35.52
ATOM	8666	NE	ARG	B	356	75.793	78.531	79.846	1.00 38.21

ATOM	8667	CZ	ARG	B	356	75.894	78.449	81.200	1.00	39.82
ATOM	8668	NH1	ARG	B	356	74.820	78.183	81.957	1.00	36.94
ATOM	8669	NH2	ARG	B	356	77.087	78.598	81.775	1.00	37.65
ATOM	8670	N	PHE	B	357	70.866	79.483	75.443	1.00	35.26
ATOM	8671	CA	PHE	B	357	69.758	79.256	74.502	1.00	35.55
ATOM	8672	C	PHE	B	357	68.712	80.331	74.630	1.00	34.88
ATOM	8673	O	PHE	B	357	67.720	80.325	73.919	1.00	34.09
ATOM	8674	CB	PHE	B	357	69.126	77.893	74.766	1.00	35.51
ATOM	8675	CG	PHE	B	357	70.019	76.753	74.386	1.00	37.45
ATOM	8676	CD1	PHE	B	357	70.316	76.521	73.067	1.00	35.48
ATOM	8677	CD2	PHE	B	357	70.577	75.928	75.351	1.00	39.96
ATOM	8678	CE1	PHE	B	357	71.138	75.472	72.688	1.00	37.76
ATOM	8679	CE2	PHE	B	357	71.415	74.876	74.969	1.00	41.24
ATOM	8680	CZ	PHE	B	357	71.702	74.667	73.635	1.00	37.57
ATOM	8681	N	ARG	B	358	68.954	81.268	75.546	1.00	35.42
ATOM	8682	CA	ARG	B	358	68.012	82.347	75.833	1.00	35.39
ATOM	8683	C	ARG	B	358	68.648	83.253	76.857	1.00	34.33
ATOM	8684	O	ARG	B	358	69.666	82.926	77.425	1.00	34.66
ATOM	8685	CB	ARG	B	358	66.667	81.805	76.370	1.00	35.32
ATOM	8686	CG	ARG	B	358	66.731	81.096	77.770	1.00	38.01
ATOM	8687	CD	ARG	B	358	65.429	80.293	78.171	1.00	42.56
ATOM	8688	NE	ARG	B	358	65.604	78.889	77.792	1.00	49.10
ATOM	8689	CZ	ARG	B	358	64.871	78.203	76.909	1.00	51.71
ATOM	8690	NH1	ARG	B	358	63.820	78.739	76.303	1.00	52.49
ATOM	8691	NH2	ARG	B	358	65.190	76.939	76.663	1.00	51.90
ATOM	8692	N	PRO	B	359	68.079	84.425	77.048	1.00	32.96
ATOM	8693	CA	PRO	B	359	68.495	85.278	78.148	1.00	32.14
ATOM	8694	C	PRO	B	359	68.309	84.553	79.478	1.00	30.75
ATOM	8695	O	PRO	B	359	67.307	83.888	79.667	1.00	30.00
ATOM	8696	CB	PRO	B	359	67.540	86.463	78.014	1.00	32.50
ATOM	8697	CG	PRO	B	359	67.289	86.504	76.527	1.00	33.46
ATOM	8698	CD	PRO	B	359	67.029	85.049	76.211	1.00	33.28
ATOM	8699	N	SER	B	360	69.266	84.675	80.397	1.00	30.44
ATOM	8700	CA	SER	B	360	69.198	83.945	81.676	1.00	29.20
ATOM	8701	C	SER	B	360	68.112	84.453	82.602	1.00	28.79
ATOM	8702	O	SER	B	360	67.624	85.562	82.505	1.00	28.07
ATOM	8703	CB	SER	B	360	70.522	84.017	82.409	1.00	29.03
ATOM	8704	OG	SER	B	360	70.890	85.376	82.554	1.00	30.75
ATOM	8705	N	GLU	B	361	67.754	83.603	83.528	1.00	29.04
ATOM	8706	CA	GLU	B	361	66.686	83.869	84.431	1.00	30.28
ATOM	8707	C	GLU	B	361	67.151	84.828	85.541	1.00	29.46
ATOM	8708	O	GLU	B	361	68.238	84.630	86.091	1.00	28.02
ATOM	8709	CB	GLU	B	361	66.244	82.518	85.049	1.00	30.80
ATOM	8710	CG	GLU	B	361	64.975	82.620	85.892	1.00	35.11
ATOM	8711	CD	GLU	B	361	64.623	81.357	86.687	1.00	40.13
ATOM	8712	OE1	GLU	B	361	65.395	80.387	86.648	1.00	43.02
ATOM	8713	OE2	GLU	B	361	63.549	81.338	87.357	1.00	42.81
ATOM	8714	N	PRO	B	362	66.335	85.829	85.892	1.00	29.14
ATOM	8715	CA	PRO	B	362	66.613	86.687	87.066	1.00	28.78
ATOM	8716	C	PRO	B	362	66.064	86.097	88.366	1.00	28.53
ATOM	8717	O	PRO	B	362	64.914	85.729	88.357	1.00	28.21
ATOM	8718	CB	PRO	B	362	65.840	87.974	86.748	1.00	29.13
ATOM	8719	CG	PRO	B	362	64.578	87.491	85.880	1.00	28.93
ATOM	8720	CD	PRO	B	362	65.101	86.246	85.188	1.00	29.81
ATOM	8721	N	HIS	B	363	66.838	86.048	89.456	1.00	28.24
ATOM	8722	CA	HIS	B	363	66.357	85.516	90.729	1.00	28.25
ATOM	8723	C	HIS	B	363	66.263	86.681	91.748	1.00	28.40
ATOM	8724	O	HIS	B	363	67.276	87.210	92.185	1.00	27.96
ATOM	8725	CB	HIS	B	363	67.272	84.399	91.234	1.00	28.51
ATOM	8726	CG	HIS	B	363	67.297	83.182	90.360	1.00	28.22
ATOM	8727	ND1	HIS	B	363	67.792	83.195	89.071	1.00	32.54
ATOM	8728	CD2	HIS	B	363	66.889	81.913	90.588	1.00	27.37
ATOM	8729	CE1	HIS	B	363	67.688	81.984	88.549	1.00	30.27
ATOM	8730	NE2	HIS	B	363	67.142	81.191	89.452	1.00	29.70
ATOM	8731	N	PHE	B	364	65.043	87.058	92.125	1.00	28.36
ATOM	8732	CA	PHE	B	364	64.802	88.199	92.989	1.00	28.95
ATOM	8733	C	PHE	B	364	64.917	87.945	94.485	1.00	29.03
ATOM	8734	O	PHE	B	364	64.492	86.934	94.994	1.00	29.68
ATOM	8735	CB	PHE	B	364	63.419	88.788	92.725	1.00	28.09
ATOM	8736	CG	PHE	B	364	63.342	89.597	91.458	1.00	30.67

ATOM	8737	CD1	PHE	B	364	63.142	88.993	90.238	1.00	28.84
ATOM	8738	CD2	PHE	B	364	63.483	90.953	91.484	1.00	29.07
ATOM	8739	CE1	PHE	B	364	63.050	89.732	89.082	1.00	29.83
ATOM	8740	CE2	PHE	B	364	63.385	91.681	90.314	1.00	31.45
ATOM	8741	CZ	PHE	B	364	63.179	91.048	89.107	1.00	28.43
ATOM	8742	N	THR	B	365	65.498	88.889	95.180	1.00	30.02
ATOM	8743	CA	THR	B	365	65.501	88.851	96.639	1.00	31.47
ATOM	8744	C	THR	B	365	64.051	88.945	97.071	1.00	32.11
ATOM	8745	O	THR	B	365	63.203	89.406	96.319	1.00	32.79
ATOM	8746	CB	THR	B	365	66.180	90.081	97.159	1.00	31.37
ATOM	8747	OG1	THR	B	365	65.607	91.202	96.482	1.00	28.45
ATOM	8748	CG2	THR	B	365	67.593	90.095	96.767	1.00	33.17
ATOM	8749	N	LEU	B	366	63.778	88.542	98.288	1.00	33.65
ATOM	8750	CA	LEU	B	366	62.422	88.551	98.822	1.00	34.69
ATOM	8751	C	LEU	B	366	61.714	89.899	98.692	1.00	34.24
ATOM	8752	O	LEU	B	366	60.527	89.936	98.435	1.00	33.60
ATOM	8753	CB	LEU	B	366	62.437	88.096	100.286	1.00	35.14
ATOM	8754	CG	LEU	B	366	61.060	87.911	100.930	1.00	38.40
ATOM	8755	CD1	LEU	B	366	60.213	86.873	100.145	1.00	39.24
ATOM	8756	CD2	LEU	B	366	61.191	87.466	102.408	1.00	41.28
ATOM	8757	N	ASP	B	367	62.415	91.019	98.842	1.00	34.28
ATOM	8758	CA	ASP	B	367	61.708	92.303	98.718	1.00	34.37
ATOM	8759	C	ASP	B	367	61.542	92.770	97.272	1.00	33.70
ATOM	8760	O	ASP	B	367	60.904	93.778	97.025	1.00	34.18
ATOM	8761	CB	ASP	B	367	62.381	93.386	99.544	1.00	34.77
ATOM	8762	CG	ASP	B	367	63.844	93.626	99.136	1.00	38.12
ATOM	8763	OD1	ASP	B	367	64.185	93.593	97.906	1.00	37.36
ATOM	8764	OD2	ASP	B	367	64.721	93.849	100.003	1.00	40.82
ATOM	8765	N	GLY	B	368	62.096	92.040	96.315	1.00	33.10
ATOM	8766	CA	GLY	B	368	61.976	92.413	94.912	1.00	33.37
ATOM	8767	C	GLY	B	368	62.787	93.633	94.521	1.00	33.02
ATOM	8768	O	GLY	B	368	62.665	94.129	93.412	1.00	32.64
ATOM	8769	N	ASN	B	369	63.658	94.091	95.415	1.00	32.97
ATOM	8770	CA	ASN	B	369	64.459	95.265	95.121	1.00	32.76
ATOM	8771	C	ASN	B	369	65.768	94.991	94.482	1.00	30.68
ATOM	8772	O	ASN	B	369	66.471	95.905	94.109	1.00	29.88
ATOM	8773	CB	ASN	B	369	64.692	96.083	96.380	1.00	33.68
ATOM	8774	CG	ASN	B	369	63.565	96.993	96.653	1.00	36.77
ATOM	8775	OD1	ASN	B	369	62.763	97.230	95.762	1.00	40.15
ATOM	8776	ND2	ASN	B	369	63.460	97.500	97.902	1.00	44.89
ATOM	8777	N	SER	B	370	66.132	93.730	94.381	1.00	29.62
ATOM	8778	CA	SER	B	370	67.354	93.402	93.711	1.00	28.42
ATOM	8779	C	SER	B	370	67.210	91.984	93.213	1.00	27.80
ATOM	8780	O	SER	B	370	66.286	91.264	93.617	1.00	28.01
ATOM	8781	CB	SER	B	370	68.521	93.509	94.679	1.00	27.82
ATOM	8782	OG	SER	B	370	68.386	92.513	95.682	1.00	28.71
ATOM	8783	N	PHE	B	371	68.140	91.571	92.370	1.00	26.77
ATOM	8784	CA	PHE	B	371	68.122	90.218	91.872	1.00	26.51
ATOM	8785	C	PHE	B	371	69.476	89.724	91.429	1.00	25.96
ATOM	8786	O	PHE	B	371	70.433	90.494	91.261	1.00	26.04
ATOM	8787	CB	PHE	B	371	67.163	90.106	90.712	1.00	25.97
ATOM	8788	CG	PHE	B	371	67.525	90.965	89.516	1.00	26.30
ATOM	8789	CD1	PHE	B	371	67.081	92.277	89.425	1.00	26.19
ATOM	8790	CD2	PHE	B	371	68.305	90.470	88.493	1.00	26.20
ATOM	8791	CE1	PHE	B	371	67.366	93.056	88.335	1.00	28.41
ATOM	8792	CE2	PHE	B	371	68.589	91.241	87.380	1.00	25.01
ATOM	8793	CZ	PHE	B	371	68.126	92.543	87.299	1.00	26.85
ATOM	8794	N	TYR	B	372	69.560	88.422	91.244	1.00	25.84
ATOM	8795	CA	TYR	B	372	70.807	87.819	90.776	1.00	26.43
ATOM	8796	C	TYR	B	372	70.592	87.159	89.421	1.00	27.24
ATOM	8797	O	TYR	B	372	69.539	86.583	89.167	1.00	27.59
ATOM	8798	CB	TYR	B	372	71.299	86.800	91.791	1.00	26.09
ATOM	8799	CG	TYR	B	372	71.576	87.370	93.136	1.00	25.58
ATOM	8800	CD1	TYR	B	372	70.561	87.609	94.014	1.00	25.70
ATOM	8801	CD2	TYR	B	372	72.871	87.683	93.539	1.00	27.45
ATOM	8802	CE1	TYR	B	372	70.812	88.117	95.313	1.00	25.19
ATOM	8803	CE2	TYR	B	372	73.130	88.184	94.830	1.00	27.08
ATOM	8804	CZ	TYR	B	372	72.080	88.414	95.693	1.00	28.33
ATOM	8805	OH	TYR	B	372	72.281	88.915	96.950	1.00	28.13
ATOM	8806	N	LYS	B	373	71.611	87.194	88.572	1.00	27.72

ATOM	8807	CA	LYS	B	373	71.473	86.695	87.226	1.00	28.24
ATOM	8808	C	LYS	B	373	72.840	86.299	86.698	1.00	28.06
ATOM	8809	O	LYS	B	373	73.867	86.951	86.973	1.00	27.66
ATOM	8810	CB	LYS	B	373	70.877	87.824	86.341	1.00	28.35
ATOM	8811	CG	LYS	B	373	70.197	87.434	85.077	1.00	30.16
ATOM	8812	CD	LYS	B	373	69.538	88.673	84.427	1.00	31.31
ATOM	8813	CE	LYS	B	373	68.950	88.428	83.026	1.00	32.45
ATOM	8814	NZ	LYS	B	373	69.803	87.650	82.077	1.00	31.51
ATOM	8815	N	ILE	B	374	72.839	85.245	85.895	1.00	27.56
ATOM	8816	CA	ILE	B	374	74.059	84.780	85.249	1.00	27.63
ATOM	8817	C	ILE	B	374	74.259	85.606	83.996	1.00	27.86
ATOM	8818	O	ILE	B	374	73.350	85.803	83.226	1.00	26.36
ATOM	8819	CB	ILE	B	374	73.963	83.320	84.883	1.00	27.04
ATOM	8820	CG1	ILE	B	374	73.842	82.470	86.148	1.00	27.49
ATOM	8821	CG2	ILE	B	374	75.160	82.917	84.002	1.00	28.04
ATOM	8822	CD1	ILE	B	374	73.590	81.009	85.875	1.00	27.19
ATOM	8823	N	ILE	B	375	75.478	86.053	83.817	1.00	29.57
ATOM	8824	CA	ILE	B	375	75.851	86.968	82.760	1.00	30.61
ATOM	8825	C	ILE	B	375	77.305	86.726	82.465	1.00	30.53
ATOM	8826	O	ILE	B	375	78.086	86.330	83.355	1.00	29.58
ATOM	8827	CB	ILE	B	375	75.602	88.438	83.230	1.00	31.78
ATOM	8828	CG1	ILE	B	375	74.191	88.871	82.811	1.00	33.37
ATOM	8829	CG2	ILE	B	375	76.591	89.407	82.605	1.00	31.79
ATOM	8830	CD1	ILE	B	375	73.602	89.765	83.742	1.00	34.82
ATOM	8831	N	SER	B	376	77.646	86.930	81.202	1.00	30.08
ATOM	8832	CA	SER	B	376	78.992	86.734	80.730	1.00	30.69
ATOM	8833	C	SER	B	376	79.913	87.823	81.270	1.00	30.51
ATOM	8834	O	SER	B	376	79.617	89.003	81.142	1.00	29.37
ATOM	8835	CB	SER	B	376	78.973	86.729	79.200	1.00	30.58
ATOM	8836	OG	SER	B	376	80.189	86.251	78.714	1.00	32.76
ATOM	8837	N	ASN	B	377	81.026	87.440	81.884	1.00	31.48
ATOM	8838	CA	ASN	B	377	81.927	88.467	82.464	1.00	32.07
ATOM	8839	C	ASN	B	377	82.887	89.002	81.385	1.00	32.94
ATOM	8840	O	ASN	B	377	82.818	88.558	80.262	1.00	32.30
ATOM	8841	CB	ASN	B	377	82.631	87.984	83.751	1.00	30.65
ATOM	8842	CG	ASN	B	377	83.804	87.047	83.496	1.00	29.57
ATOM	8843	OD1	ASN	B	377	84.375	86.530	84.451	1.00	29.05
ATOM	8844	ND2	ASN	B	377	84.196	86.849	82.243	1.00	21.88
ATOM	8845	N	GLU	B	378	83.724	89.977	81.718	1.00	34.32
ATOM	8846	CA	GLU	B	378	84.634	90.586	80.743	1.00	35.84
ATOM	8847	C	GLU	B	378	85.590	89.559	80.127	1.00	35.27
ATOM	8848	O	GLU	B	378	86.042	89.730	79.014	1.00	34.81
ATOM	8849	CB	GLU	B	378	85.353	91.833	81.338	1.00	36.36
ATOM	8850	CG	GLU	B	378	84.435	93.079	81.291	1.00	40.98
ATOM	8851	CD	GLU	B	378	84.928	94.334	82.059	1.00	45.85
ATOM	8852	OE1	GLU	B	378	86.144	94.551	82.247	1.00	48.23
ATOM	8853	OE2	GLU	B	378	84.064	95.154	82.455	1.00	49.28
ATOM	8854	N	GLU	B	379	85.849	88.459	80.814	1.00	34.78
ATOM	8855	CA	GLU	B	379	86.670	87.420	80.221	1.00	35.19
ATOM	8856	C	GLU	B	379	85.865	86.476	79.313	1.00	34.29
ATOM	8857	O	GLU	B	379	86.427	85.632	78.660	1.00	34.07
ATOM	8858	CB	GLU	B	379	87.385	86.628	81.284	1.00	35.34
ATOM	8859	CG	GLU	B	379	88.484	87.413	81.956	1.00	39.50
ATOM	8860	CD	GLU	B	379	88.025	88.775	82.405	1.00	43.86
ATOM	8861	OE1	GLU	B	379	87.059	88.832	83.215	1.00	48.30
ATOM	8862	OE2	GLU	B	379	88.608	89.777	81.927	1.00	46.28
ATOM	8863	N	GLY	B	380	84.556	86.651	79.251	1.00	33.33
ATOM	8864	CA	GLY	B	380	83.705	85.747	78.507	1.00	32.76
ATOM	8865	C	GLY	B	380	83.334	84.470	79.280	1.00	31.95
ATOM	8866	O	GLY	B	380	83.083	83.450	78.654	1.00	32.76
ATOM	8867	N	TYR	B	381	83.316	84.498	80.613	1.00	29.75
ATOM	8868	CA	TYR	B	381	82.882	83.340	81.381	1.00	28.76
ATOM	8869	C	TYR	B	381	81.604	83.722	82.133	1.00	28.78
ATOM	8870	O	TYR	B	381	81.552	84.769	82.750	1.00	29.82
ATOM	8871	CB	TYR	B	381	83.947	82.866	82.363	1.00	28.72
ATOM	8872	CG	TYR	B	381	85.074	82.105	81.721	1.00	29.30
ATOM	8873	CD1	TYR	B	381	86.142	82.766	81.160	1.00	31.49
ATOM	8874	CD2	TYR	B	381	85.078	80.724	81.684	1.00	30.04
ATOM	8875	CE1	TYR	B	381	87.193	82.072	80.532	1.00	31.47
ATOM	8876	CE2	TYR	B	381	86.106	80.034	81.078	1.00	29.68

ATOM	8877	CZ	TYR	B	381	87.163	80.732	80.492	1.00	32.82
ATOM	8878	OH	TYR	B	381	88.216	80.059	79.885	1.00	36.53
ATOM	8879	N	ARG	B	382	80.580	82.874	82.059	1.00	27.19
ATOM	8880	CA	ARG	B	382	79.314	83.098	82.722	1.00	26.71
ATOM	8881	C	ARG	B	382	79.386	82.934	84.261	1.00	25.48
ATOM	8882	O	ARG	B	382	79.690	81.857	84.791	1.00	25.66
ATOM	8883	CB	ARG	B	382	78.277	82.151	82.102	1.00	27.16
ATOM	8884	CG	ARG	B	382	77.974	82.601	80.659	1.00	28.04
ATOM	8885	CD	ARG	B	382	77.363	81.557	79.695	1.00	30.58
ATOM	8886	NE	ARG	B	382	77.567	82.097	78.355	1.00	31.02
ATOM	8887	CZ	ARG	B	382	76.882	83.109	77.849	1.00	31.62
ATOM	8888	NH1	ARG	B	382	75.855	83.620	78.497	1.00	31.41
ATOM	8889	NH2	ARG	B	382	77.211	83.594	76.673	1.00	32.85
ATOM	8890	N	HIS	B	383	79.084	84.016	84.941	1.00	24.15
ATOM	8891	CA	HIS	B	383	79.165	84.137	86.401	1.00	23.61
ATOM	8892	C	HIS	B	383	77.978	84.910	86.989	1.00	23.83
ATOM	8893	O	HIS	B	383	77.300	85.645	86.276	1.00	22.88
ATOM	8894	CB	HIS	B	383	80.525	84.819	86.759	1.00	23.36
ATOM	8895	CG	HIS	B	383	81.656	83.841	86.857	1.00	23.03
ATOM	8896	ND1	HIS	B	383	82.490	83.532	85.801	1.00	22.11
ATOM	8897	CD2	HIS	B	383	82.079	83.088	87.893	1.00	25.36
ATOM	8898	CE1	HIS	B	383	83.371	82.630	86.186	1.00	23.99
ATOM	8899	NE2	HIS	B	383	83.139	82.340	87.454	1.00	25.80
ATOM	8900	N	ILE	B	384	77.739	84.763	88.302	1.00	25.28
ATOM	8901	CA	ILE	B	384	76.612	85.422	88.951	1.00	26.29
ATOM	8902	C	ILE	B	384	76.839	86.916	89.191	1.00	27.83
ATOM	8903	O	ILE	B	384	77.830	87.297	89.825	1.00	29.35
ATOM	8904	CB	ILE	B	384	76.295	84.719	90.285	1.00	26.60
ATOM	8905	CG1	ILE	B	384	76.014	83.222	90.045	1.00	25.88
ATOM	8906	CG2	ILE	B	384	75.167	85.373	90.954	1.00	25.18
ATOM	8907	CD1	ILE	B	384	75.990	82.403	91.282	1.00	24.31
ATOM	8908	N	CYS	B	385	75.912	87.738	88.701	1.00	29.31
ATOM	8909	CA	CYS	B	385	75.907	89.180	88.884	1.00	31.49
ATOM	8910	C	CYS	B	385	74.746	89.630	89.761	1.00	30.90
ATOM	8911	O	CYS	B	385	73.610	89.178	89.583	1.00	29.44
ATOM	8912	CB	CYS	B	385	75.741	89.914	87.552	1.00	32.52
ATOM	8913	SG	CYS	B	385	77.023	91.169	87.259	1.00	41.33
ATOM	8914	N	TYR	B	386	75.048	90.574	90.659	1.00	30.34
ATOM	8915	CA	TYR	B	386	74.096	91.148	91.589	1.00	30.15
ATOM	8916	C	TYR	B	386	73.657	92.487	91.066	1.00	30.01
ATOM	8917	O	TYR	B	386	74.472	93.316	90.795	1.00	30.40
ATOM	8918	CB	TYR	B	386	74.762	91.325	92.964	1.00	30.21
ATOM	8919	CG	TYR	B	386	73.883	91.980	94.011	1.00	30.72
ATOM	8920	CD1	TYR	B	386	72.621	91.474	94.301	1.00	29.66
ATOM	8921	CD2	TYR	B	386	74.329	93.076	94.732	1.00	32.09
ATOM	8922	CE1	TYR	B	386	71.802	92.084	95.267	1.00	33.09
ATOM	8923	CE2	TYR	B	386	73.522	93.682	95.733	1.00	33.08
ATOM	8924	CZ	TYR	B	386	72.276	93.170	95.999	1.00	31.44
ATOM	8925	OH	TYR	B	386	71.473	93.751	96.949	1.00	36.22
ATOM	8926	N	PHE	B	387	72.359	92.689	90.939	1.00	30.76
ATOM	8927	CA	PHE	B	387	71.794	93.881	90.337	1.00	31.09
ATOM	8928	C	PHE	B	387	70.891	94.524	91.384	1.00	32.31
ATOM	8929	O	PHE	B	387	70.170	93.836	92.091	1.00	30.31
ATOM	8930	CB	PHE	B	387	70.906	93.514	89.127	1.00	31.28
ATOM	8931	CG	PHE	B	387	71.665	93.062	87.874	1.00	31.87
ATOM	8932	CD1	PHE	B	387	71.999	91.738	87.675	1.00	30.46
ATOM	8933	CD2	PHE	B	387	72.051	93.995	86.911	1.00	34.40
ATOM	8934	CE1	PHE	B	387	72.683	91.335	86.539	1.00	33.89
ATOM	8935	CE2	PHE	B	387	72.739	93.613	85.768	1.00	34.48
ATOM	8936	CZ	PHE	B	387	73.058	92.274	85.582	1.00	36.19
ATOM	8937	N	GLN	B	388	70.896	95.845	91.468	1.00	34.06
ATOM	8938	CA	GLN	B	388	69.942	96.521	92.340	1.00	35.90
ATOM	8939	C	GLN	B	388	69.069	97.263	91.372	1.00	37.74
ATOM	8940	O	GLN	B	388	69.591	97.877	90.453	1.00	37.76
ATOM	8941	CB	GLN	B	388	70.654	97.415	93.358	1.00	35.39
ATOM	8942	CG	GLN	B	388	71.594	96.584	94.276	1.00	36.10
ATOM	8943	CD	GLN	B	388	72.371	97.422	95.270	1.00	35.87
ATOM	8944	OE1	GLN	B	388	72.861	98.479	94.926	1.00	38.43
ATOM	8945	NE2	GLN	B	388	72.507	96.933	96.492	1.00	37.79
ATOM	8946	N	ILE	B	389	67.758	97.231	91.592	1.00	40.35

ATOM	8947	CA	ILE	B	389	66.774	97.704	90.603	1.00	43.25
ATOM	8948	C	ILE	B	389	66.861	99.086	89.988	1.00	45.07
ATOM	8949	O	ILE	B	389	66.611	99.222	88.787	1.00	47.31
ATOM	8950	CB	ILE	B	389	65.344	97.464	91.121	1.00	44.21
ATOM	8951	CG1	ILE	B	389	64.826	96.163	90.527	1.00	45.14
ATOM	8952	CG2	ILE	B	389	64.392	98.594	90.734	1.00	44.71
ATOM	8953	CD1	ILE	B	389	63.959	95.453	91.453	1.00	47.44
ATOM	8954	N	ASP	B	390	67.181	100.110	90.755	1.00	46.92
ATOM	8955	CA	ASP	B	390	67.277	101.449	90.172	1.00	48.07
ATOM	8956	C	ASP	B	390	68.756	101.842	90.063	1.00	49.25
ATOM	8957	O	ASP	B	390	69.087	103.011	90.098	1.00	49.25
ATOM	8958	CB	ASP	B	390	66.516	102.482	91.045	1.00	48.49
ATOM	8959	CG	ASP	B	390	64.998	102.496	90.783	1.00	48.30
ATOM	8960	OD1	ASP	B	390	64.590	102.514	89.612	1.00	49.59
ATOM	8961	OD2	ASP	B	390	64.131	102.503	91.677	1.00	48.98
ATOM	8962	N	LYS	B	391	69.642	100.852	89.990	1.00	50.15
ATOM	8963	CA	LYS	B	391	71.075	101.102	89.821	1.00	50.80
ATOM	8964	C	LYS	B	391	71.482	100.336	88.592	1.00	50.82
ATOM	8965	O	LYS	B	391	70.958	99.261	88.320	1.00	51.41
ATOM	8966	CB	LYS	B	391	71.887	100.669	91.051	1.00	50.88
ATOM	8967	CG	LYS	B	391	71.596	101.499	92.317	1.00	51.89
ATOM	8968	CD	LYS	B	391	72.836	102.252	92.832	1.00	53.68
ATOM	8969	CE	LYS	B	391	72.503	103.218	93.957	1.00	55.27
ATOM	8970	NZ	LYS	B	391	73.674	104.105	94.133	1.00	57.04
ATOM	8971	N	LYS	B	392	72.448	100.865	87.867	1.00	51.42
ATOM	8972	CA	LYS	B	392	72.757	100.359	86.536	1.00	51.86
ATOM	8973	C	LYS	B	392	73.714	99.176	86.410	1.00	51.31
ATOM	8974	O	LYS	B	392	73.448	98.220	85.693	1.00	51.18
ATOM	8975	CB	LYS	B	392	73.261	101.506	85.648	1.00	52.67
ATOM	8976	CG	LYS	B	392	73.932	102.688	86.392	1.00	54.96
ATOM	8977	CD	LYS	B	392	75.348	102.953	85.871	1.00	58.49
ATOM	8978	CE	LYS	B	392	75.716	104.447	85.878	1.00	60.19
ATOM	8979	NZ	LYS	B	392	75.395	105.170	84.572	1.00	60.31
ATOM	8980	N	ASP	B	393	74.848	99.216	87.064	1.00	50.38
ATOM	8981	CA	ASP	B	393	75.774	98.139	86.809	1.00	50.08
ATOM	8982	C	ASP	B	393	75.479	96.973	87.709	1.00	48.21
ATOM	8983	O	ASP	B	393	74.579	97.024	88.532	1.00	49.43
ATOM	8984	CB	ASP	B	393	77.206	98.620	86.957	1.00	50.72
ATOM	8985	CG	ASP	B	393	77.617	99.543	85.820	1.00	53.43
ATOM	8986	OD1	ASP	B	393	77.555	99.116	84.628	1.00	55.71
ATOM	8987	OD2	ASP	B	393	77.999	100.714	86.034	1.00	57.39
ATOM	8988	N	CYS	B	394	76.187	95.884	87.536	1.00	45.33
ATOM	8989	CA	CYS	B	394	75.963	94.802	88.461	1.00	43.02
ATOM	8990	C	CYS	B	394	77.288	94.481	89.056	1.00	40.29
ATOM	8991	O	CYS	B	394	78.308	95.025	88.650	1.00	38.33
ATOM	8992	CB	CYS	B	394	75.347	93.604	87.765	1.00	43.53
ATOM	8993	SG	CYS	B	394	76.360	92.904	86.459	1.00	44.49
ATOM	8994	N	THR	B	395	77.250	93.629	90.060	1.00	37.49
ATOM	8995	CA	THR	B	395	78.437	93.246	90.763	1.00	35.54
ATOM	8996	C	THR	B	395	78.599	91.760	90.638	1.00	33.54
ATOM	8997	O	THR	B	395	77.741	90.995	91.057	1.00	32.26
ATOM	8998	CB	THR	B	395	78.290	93.644	92.268	1.00	35.46
ATOM	8999	OG1	THR	B	395	78.242	95.060	92.361	1.00	34.51
ATOM	9000	CG2	THR	B	395	79.534	93.247	93.102	1.00	35.50
ATOM	9001	N	PHE	B	396	79.705	91.356	90.053	1.00	32.02
ATOM	9002	CA	PHE	B	396	80.028	89.949	89.976	1.00	31.62
ATOM	9003	C	PHE	B	396	80.393	89.408	91.339	1.00	31.00
ATOM	9004	O	PHE	B	396	81.157	89.983	92.069	1.00	31.02
ATOM	9005	CB	PHE	B	396	81.158	89.704	88.994	1.00	31.73
ATOM	9006	CG	PHE	B	396	80.707	89.754	87.577	1.00	32.92
ATOM	9007	CD1	PHE	B	396	79.940	88.718	87.049	1.00	32.79
ATOM	9008	CD2	PHE	B	396	81.012	90.852	86.773	1.00	35.08
ATOM	9009	CE1	PHE	B	396	79.491	88.766	85.732	1.00	31.84
ATOM	9010	CE2	PHE	B	396	80.563	90.912	85.473	1.00	33.94
ATOM	9011	CZ	PHE	B	396	79.795	89.853	84.950	1.00	35.28
ATOM	9012	N	ILE	B	397	79.857	88.249	91.632	1.00	30.00
ATOM	9013	CA	ILE	B	397	79.987	87.618	92.911	1.00	28.98
ATOM	9014	C	ILE	B	397	80.719	86.311	92.760	1.00	28.29
ATOM	9015	O	ILE	B	397	81.147	85.707	93.756	1.00	26.77
ATOM	9016	CB	ILE	B	397	78.566	87.480	93.378	1.00	30.09

ATOM	9017	CG1	ILE	B	397	78.255	88.618	94.308	1.00	30.11
ATOM	9018	CG2	ILE	B	397	78.181	86.088	93.850	1.00	33.13
ATOM	9019	CD1	ILE	B	397	77.145	89.355	93.736	1.00	34.11
ATOM	9020	N	THR	B	398	80.916	85.882	91.507	1.00	26.82
ATOM	9021	CA	THR	B	398	81.759	84.692	91.241	1.00	26.63
ATOM	9022	C	THR	B	398	82.607	85.058	90.082	1.00	26.53
ATOM	9023	O	THR	B	398	82.279	85.964	89.351	1.00	25.15
ATOM	9024	CB	THR	B	398	80.958	83.405	90.855	1.00	26.34
ATOM	9025	OG1	THR	B	398	80.066	83.700	89.776	1.00	24.02
ATOM	9026	CG2	THR	B	398	80.114	82.910	91.966	1.00	24.85
ATOM	9027	N	LYS	B	399	83.699	84.354	89.906	1.00	27.52
ATOM	9028	CA	LYS	B	399	84.562	84.650	88.796	1.00	29.60
ATOM	9029	C	LYS	B	399	85.525	83.540	88.621	1.00	28.96
ATOM	9030	O	LYS	B	399	85.620	82.659	89.454	1.00	27.40
ATOM	9031	CB	LYS	B	399	85.331	85.973	89.004	1.00	30.65
ATOM	9032	CG	LYS	B	399	86.196	85.968	90.241	1.00	33.69
ATOM	9033	CD	LYS	B	399	87.538	86.536	89.932	1.00	39.54
ATOM	9034	CE	LYS	B	399	87.562	88.053	89.776	1.00	41.78
ATOM	9035	NZ	LYS	B	399	88.942	88.504	89.306	1.00	45.54
ATOM	9036	N	GLY	B	400	86.219	83.587	87.494	1.00	28.97
ATOM	9037	CA	GLY	B	400	87.209	82.608	87.186	1.00	29.71
ATOM	9038	C	GLY	B	400	86.942	81.913	85.862	1.00	29.99
ATOM	9039	O	GLY	B	400	85.961	82.201	85.158	1.00	30.25
ATOM	9040	N	THR	B	401	87.839	81.000	85.550	1.00	29.97
ATOM	9041	CA	THR	B	401	87.836	80.234	84.296	1.00	31.55
ATOM	9042	C	THR	B	401	86.956	79.005	84.392	1.00	29.87
ATOM	9043	O	THR	B	401	87.419	77.881	84.282	1.00	30.82
ATOM	9044	CB	THR	B	401	89.266	79.725	84.038	1.00	31.58
ATOM	9045	OG1	THR	B	401	90.167	80.834	83.969	1.00	35.93
ATOM	9046	CG2	THR	B	401	89.362	79.179	82.687	1.00	35.92
ATOM	9047	N	TRP	B	402	85.684	79.219	84.592	1.00	28.95
ATOM	9048	CA	TRP	B	402	84.738	78.136	84.696	1.00	27.57
ATOM	9049	C	TRP	B	402	83.433	78.870	84.627	1.00	26.43
ATOM	9050	O	TRP	B	402	83.435	80.082	84.519	1.00	24.58
ATOM	9051	CB	TRP	B	402	84.908	77.356	85.991	1.00	27.62
ATOM	9052	CG	TRP	B	402	85.024	78.201	87.275	1.00	29.73
ATOM	9053	CD1	TRP	B	402	86.192	78.594	87.908	1.00	31.52
ATOM	9054	CD2	TRP	B	402	83.953	78.686	88.102	1.00	30.78
ATOM	9055	NE1	TRP	B	402	85.906	79.278	89.065	1.00	31.48
ATOM	9056	CE2	TRP	B	402	84.548	79.365	89.215	1.00	32.72
ATOM	9057	CE3	TRP	B	402	82.564	78.599	88.039	1.00	28.88
ATOM	9058	CZ2	TRP	B	402	83.797	79.979	90.216	1.00	30.83
ATOM	9059	CZ3	TRP	B	402	81.810	79.196	89.044	1.00	30.58
ATOM	9060	CH2	TRP	B	402	82.435	79.894	90.125	1.00	32.45
ATOM	9061	N	GLU	B	403	82.321	78.154	84.654	1.00	26.31
ATOM	9062	CA	GLU	B	403	81.032	78.798	84.531	1.00	25.43
ATOM	9063	C	GLU	B	403	79.993	78.330	85.506	1.00	24.97
ATOM	9064	O	GLU	B	403	79.951	77.164	85.890	1.00	24.08
ATOM	9065	CB	GLU	B	403	80.476	78.571	83.141	1.00	24.99
ATOM	9066	CG	GLU	B	403	81.355	79.047	82.020	1.00	26.01
ATOM	9067	CD	GLU	B	403	80.550	79.358	80.756	1.00	30.67
ATOM	9068	OE1	GLU	B	403	79.631	78.581	80.456	1.00	33.68
ATOM	9069	OE2	GLU	B	403	80.805	80.383	80.077	1.00	32.90
ATOM	9070	N	VAL	B	404	79.143	79.269	85.876	1.00	24.19
ATOM	9071	CA	VAL	B	404	78.021	78.964	86.702	1.00	25.23
ATOM	9072	C	VAL	B	404	77.000	78.456	85.747	1.00	25.03
ATOM	9073	O	VAL	B	404	76.678	79.074	84.712	1.00	23.31
ATOM	9074	CB	VAL	B	404	77.467	80.232	87.452	1.00	25.92
ATOM	9075	CG1	VAL	B	404	76.106	79.958	88.025	1.00	27.06
ATOM	9076	CG2	VAL	B	404	78.470	80.712	88.550	1.00	23.98
ATOM	9077	N	ILE	B	405	76.476	77.304	86.092	1.00	26.18
ATOM	9078	CA	ILE	B	405	75.489	76.685	85.257	1.00	26.99
ATOM	9079	C	ILE	B	405	74.079	77.139	85.605	1.00	26.62
ATOM	9080	O	ILE	B	405	73.263	77.366	84.720	1.00	25.39
ATOM	9081	CB	ILE	B	405	75.670	75.240	85.340	1.00	27.77
ATOM	9082	CG1	ILE	B	405	76.971	74.952	84.604	1.00	30.83
ATOM	9083	CG2	ILE	B	405	74.449	74.493	84.696	1.00	29.84
ATOM	9084	CD1	ILE	B	405	77.439	73.644	84.822	1.00	33.92
ATOM	9085	N	GLY	B	406	73.803	77.312	86.884	1.00	25.76
ATOM	9086	CA	GLY	B	406	72.486	77.790	87.267	1.00	26.15

ATOM	9087	C	GLY	B	406	72.456	78.242	88.716	1.00	26.02
ATOM	9088	O	GLY	B	406	73.205	77.698	89.554	1.00	24.13
ATOM	9089	N	ILE	B	407	71.619	79.261	88.981	1.00	26.05
ATOM	9090	CA	ILE	B	407	71.280	79.674	90.347	1.00	26.77
ATOM	9091	C	ILE	B	407	70.081	78.868	90.832	1.00	27.33
ATOM	9092	O	ILE	B	407	68.983	78.933	90.237	1.00	27.55
ATOM	9093	CB	ILE	B	407	70.943	81.145	90.378	1.00	26.48
ATOM	9094	CG1	ILE	B	407	72.205	81.953	90.101	1.00	26.38
ATOM	9095	CG2	ILE	B	407	70.165	81.491	91.655	1.00	27.27
ATOM	9096	CD1	ILE	B	407	71.902	83.371	89.644	1.00	25.94
ATOM	9097	N	GLU	B	408	70.277	78.133	91.923	1.00	26.92
ATOM	9098	CA	GLU	B	408	69.316	77.142	92.348	1.00	27.73
ATOM	9099	C	GLU	B	408	68.463	77.505	93.557	1.00	28.16
ATOM	9100	O	GLU	B	408	67.355	77.002	93.695	1.00	28.50
ATOM	9101	CB	GLU	B	408	70.033	75.846	92.615	1.00	28.28
ATOM	9102	CG	GLU	B	408	70.781	75.323	91.405	1.00	30.97
ATOM	9103	CD	GLU	B	408	69.860	74.929	90.275	1.00	31.77
ATOM	9104	OE1	GLU	B	408	68.715	74.532	90.478	1.00	32.78
ATOM	9105	OE2	GLU	B	408	70.269	75.048	89.156	1.00	39.65
ATOM	9106	N	ALA	B	409	68.983	78.347	94.438	1.00	27.97
ATOM	9107	CA	ALA	B	409	68.194	78.895	95.507	1.00	27.24
ATOM	9108	C	ALA	B	409	68.812	80.169	96.106	1.00	27.92
ATOM	9109	O	ALA	B	409	70.039	80.448	96.014	1.00	27.82
ATOM	9110	CB	ALA	B	409	67.968	77.835	96.584	1.00	28.64
ATOM	9111	N	LEU	B	410	67.951	80.934	96.753	1.00	28.55
ATOM	9112	CA	LEU	B	410	68.334	82.194	97.320	1.00	29.03
ATOM	9113	C	LEU	B	410	67.521	82.462	98.576	1.00	28.80
ATOM	9114	O	LEU	B	410	66.316	82.382	98.555	1.00	26.13
ATOM	9115	CB	LEU	B	410	68.073	83.295	96.278	1.00	29.70
ATOM	9116	CG	LEU	B	410	68.224	84.705	96.823	1.00	31.21
ATOM	9117	CD1	LEU	B	410	69.711	85.058	96.967	1.00	32.59
ATOM	9118	CD2	LEU	B	410	67.536	85.707	95.927	1.00	33.71
ATOM	9119	N	THR	B	411	68.229	82.682	99.680	1.00	29.36
ATOM	9120	CA	THR	B	411	67.656	83.132	100.933	1.00	30.44
ATOM	9121	C	THR	B	411	68.447	84.420	101.260	1.00	31.21
ATOM	9122	O	THR	B	411	69.276	84.849	100.517	1.00	31.07
ATOM	9123	CB	THR	B	411	67.882	82.113	102.087	1.00	30.75
ATOM	9124	OG1	THR	B	411	69.276	82.093	102.466	1.00	30.99
ATOM	9125	CG2	THR	B	411	67.613	80.696	101.653	1.00	31.01
ATOM	9126	N	SER	B	412	68.166	85.015	102.408	1.00	32.99
ATOM	9127	CA	SER	B	412	68.879	86.230	102.750	1.00	33.86
ATOM	9128	C	SER	B	412	70.348	86.027	103.168	1.00	33.76
ATOM	9129	O	SER	B	412	71.138	86.976	103.098	1.00	35.07
ATOM	9130	CB	SER	B	412	68.136	86.949	103.855	1.00	34.08
ATOM	9131	OG	SER	B	412	68.298	86.251	105.064	1.00	37.09
ATOM	9132	N	ASP	B	413	70.711	84.820	103.609	1.00	33.55
ATOM	9133	CA	ASP	B	413	72.094	84.541	104.037	1.00	33.66
ATOM	9134	C	ASP	B	413	72.955	83.923	102.951	1.00	33.40
ATOM	9135	O	ASP	B	413	74.177	84.069	102.965	1.00	34.09
ATOM	9136	CB	ASP	B	413	72.147	83.717	105.349	1.00	34.67
ATOM	9137	CG	ASP	B	413	71.291	84.350	106.472	1.00	37.43
ATOM	9138	OD1	ASP	B	413	71.142	85.591	106.512	1.00	35.18
ATOM	9139	OD2	ASP	B	413	70.682	83.677	107.314	1.00	41.17
ATOM	9140	N	TYR	B	414	72.315	83.241	102.004	1.00	32.74
ATOM	9141	CA	TYR	B	414	73.023	82.442	101.042	1.00	32.44
ATOM	9142	C	TYR	B	414	72.379	82.402	99.639	1.00	31.27
ATOM	9143	O	TYR	B	414	71.164	82.522	99.514	1.00	29.95
ATOM	9144	CB	TYR	B	414	73.061	81.010	101.548	1.00	33.10
ATOM	9145	CG	TYR	B	414	73.550	80.834	102.967	1.00	37.63
ATOM	9146	CD1	TYR	B	414	74.871	81.095	103.311	1.00	43.56
ATOM	9147	CD2	TYR	B	414	72.691	80.389	103.964	1.00	42.38
ATOM	9148	CE1	TYR	B	414	75.319	80.908	104.606	1.00	45.87
ATOM	9149	CE2	TYR	B	414	73.130	80.234	105.262	1.00	45.10
ATOM	9150	CZ	TYR	B	414	74.442	80.506	105.570	1.00	45.30
ATOM	9151	OH	TYR	B	414	74.876	80.344	106.861	1.00	51.32
ATOM	9152	N	LEU	B	415	73.237	82.251	98.615	1.00	29.76
ATOM	9153	CA	LEU	B	415	72.847	81.988	97.231	1.00	28.70
ATOM	9154	C	LEU	B	415	73.486	80.654	96.880	1.00	28.09
ATOM	9155	O	LEU	B	415	74.708	80.467	97.041	1.00	27.98
ATOM	9156	CB	LEU	B	415	73.371	83.056	96.271	1.00	28.13

ATOM	9157	CG	LEU	B	415	72.962	82.857	94.815	1.00	29.69
ATOM	9158	CD1	LEU	B	415	72.755	84.190	94.108	1.00	29.73
ATOM	9159	CD2	LEU	B	415	73.952	81.961	94.065	1.00	30.10
ATOM	9160	N	TYR	B	416	72.675	79.708	96.432	1.00	26.86
ATOM	9161	CA	TYR	B	416	73.186	78.391	96.098	1.00	26.62
ATOM	9162	C	TYR	B	416	73.166	78.226	94.565	1.00	25.78
ATOM	9163	O	TYR	B	416	72.160	78.527	93.927	1.00	26.80
ATOM	9164	CB	TYR	B	416	72.308	77.281	96.697	1.00	25.80
ATOM	9165	CG	TYR	B	416	72.240	77.193	98.173	1.00	28.15
ATOM	9166	CD1	TYR	B	416	71.371	78.007	98.876	1.00	27.63
ATOM	9167	CD2	TYR	B	416	72.953	76.256	98.868	1.00	28.81
ATOM	9168	CE1	TYR	B	416	71.247	77.933	100.196	1.00	28.41
ATOM	9169	CE2	TYR	B	416	72.822	76.176	100.242	1.00	31.88
ATOM	9170	CZ	TYR	B	416	71.970	77.042	100.887	1.00	30.74
ATOM	9171	OH	TYR	B	416	71.763	77.015	102.225	1.00	27.12
ATOM	9172	N	TYR	B	417	74.250	77.723	94.003	1.00	24.99
ATOM	9173	CA	TYR	B	417	74.373	77.573	92.573	1.00	25.31
ATOM	9174	C	TYR	B	417	75.128	76.325	92.181	1.00	24.04
ATOM	9175	O	TYR	B	417	75.848	75.757	92.985	1.00	23.73
ATOM	9176	CB	TYR	B	417	75.065	78.809	91.972	1.00	25.15
ATOM	9177	CG	TYR	B	417	76.537	78.928	92.293	1.00	28.08
ATOM	9178	CD1	TYR	B	417	76.976	79.616	93.428	1.00	27.99
ATOM	9179	CD2	TYR	B	417	77.500	78.329	91.491	1.00	28.55
ATOM	9180	CE1	TYR	B	417	78.331	79.734	93.718	1.00	27.43
ATOM	9181	CE2	TYR	B	417	78.852	78.418	91.811	1.00	29.29
ATOM	9182	CZ	TYR	B	417	79.253	79.143	92.915	1.00	28.63
ATOM	9183	OH	TYR	B	417	80.606	79.212	93.242	1.00	29.92
ATOM	9184	N	ILE	B	418	74.960	75.903	90.932	1.00	22.92
ATOM	9185	CA	ILE	B	418	75.687	74.766	90.395	1.00	22.89
ATOM	9186	C	ILE	B	418	76.734	75.268	89.427	1.00	22.06
ATOM	9187	O	ILE	B	418	76.488	76.179	88.668	1.00	21.82
ATOM	9188	CB	ILE	B	418	74.727	73.795	89.704	1.00	24.28
ATOM	9189	CG1	ILE	B	418	73.965	73.011	90.762	1.00	26.51
ATOM	9190	CG2	ILE	B	418	75.475	72.742	88.818	1.00	23.28
ATOM	9191	CD1	ILE	B	418	72.754	72.473	90.209	1.00	26.35
ATOM	9192	N	SER	B	419	77.921	74.707	89.459	1.00	22.69
ATOM	9193	CA	SER	B	419	78.984	75.110	88.501	1.00	22.54
ATOM	9194	C	SER	B	419	79.863	73.981	88.105	1.00	22.43
ATOM	9195	O	SER	B	419	79.835	72.928	88.740	1.00	22.38
ATOM	9196	CB	SER	B	419	79.892	76.217	89.080	1.00	23.04
ATOM	9197	OG	SER	B	419	80.960	75.726	89.913	1.00	22.13
ATOM	9198	N	ASN	B	420	80.682	74.209	87.078	1.00	22.56
ATOM	9199	CA	ASN	B	420	81.700	73.236	86.735	1.00	23.33
ATOM	9200	C	ASN	B	420	83.064	73.570	87.316	1.00	24.36
ATOM	9201	O	ASN	B	420	84.080	73.076	86.795	1.00	23.91
ATOM	9202	CB	ASN	B	420	81.859	72.970	85.212	1.00	23.30
ATOM	9203	CG	ASN	B	420	82.003	74.234	84.387	1.00	23.65
ATOM	9204	OD1	ASN	B	420	81.738	74.231	83.187	1.00	25.64
ATOM	9205	ND2	ASN	B	420	82.358	75.321	85.026	1.00	24.56
ATOM	9206	N	GLU	B	421	83.104	74.307	88.432	1.00	25.65
ATOM	9207	CA	GLU	B	421	84.396	74.668	88.992	1.00	26.66
ATOM	9208	C	GLU	B	421	85.244	73.495	89.362	1.00	26.87
ATOM	9209	O	GLU	B	421	86.443	73.530	89.134	1.00	28.68
ATOM	9210	CB	GLU	B	421	84.304	75.596	90.251	1.00	27.29
ATOM	9211	CG	GLU	B	421	85.672	76.069	90.692	1.00	28.18
ATOM	9212	CD	GLU	B	421	85.657	77.091	91.819	1.00	30.20
ATOM	9213	OE1	GLU	B	421	84.593	77.354	92.391	1.00	28.33
ATOM	9214	OE2	GLU	B	421	86.743	77.642	92.101	1.00	30.05
ATOM	9215	N	TYR	B	422	84.668	72.470	89.966	1.00	28.24
ATOM	9216	CA	TYR	B	422	85.499	71.428	90.558	1.00	29.25
ATOM	9217	C	TYR	B	422	86.528	70.779	89.621	1.00	30.07
ATOM	9218	O	TYR	B	422	86.189	70.226	88.558	1.00	27.85
ATOM	9219	CB	TYR	B	422	84.630	70.374	91.187	1.00	29.87
ATOM	9220	CG	TYR	B	422	85.346	69.559	92.200	1.00	33.87
ATOM	9221	CD1	TYR	B	422	86.083	70.174	93.237	1.00	35.94
ATOM	9222	CD2	TYR	B	422	85.310	68.161	92.147	1.00	35.90
ATOM	9223	CE1	TYR	B	422	86.749	69.415	94.164	1.00	35.72
ATOM	9224	CE2	TYR	B	422	85.980	67.393	93.088	1.00	34.40
ATOM	9225	CZ	TYR	B	422	86.674	68.013	94.091	1.00	37.30
ATOM	9226	OH	TYR	B	422	87.336	67.228	95.014	1.00	39.63

ATOM	9227	N	LYS	B	423	87.788	70.862	90.058	1.00	30.25
ATOM	9228	CA	LYS	B	423	88.952	70.283	89.386	1.00	30.83
ATOM	9229	C	LYS	B	423	89.091	70.788	87.951	1.00	30.10
ATOM	9230	O	LYS	B	423	89.702	70.169	87.114	1.00	30.09
ATOM	9231	CB	LYS	B	423	88.912	68.756	89.420	1.00	31.66
ATOM	9232	CG	LYS	B	423	88.821	68.130	90.813	1.00	34.36
ATOM	9233	CD	LYS	B	423	88.615	66.591	90.727	1.00	38.25
ATOM	9234	CE	LYS	B	423	89.054	65.847	92.039	1.00	42.76
ATOM	9235	NZ	LYS	B	423	88.749	64.333	92.051	1.00	41.23
ATOM	9236	N	GLY	B	424	88.557	71.946	87.662	1.00	29.74
ATOM	9237	CA	GLY	B	424	88.680	72.460	86.311	1.00	29.83
ATOM	9238	C	GLY	B	424	88.062	71.569	85.238	1.00	29.16
ATOM	9239	O	GLY	B	424	88.463	71.667	84.113	1.00	29.94
ATOM	9240	N	MET	B	425	87.122	70.697	85.586	1.00	29.00
ATOM	9241	CA	MET	B	425	86.456	69.773	84.652	1.00	29.38
ATOM	9242	C	MET	B	425	85.169	70.364	84.076	1.00	27.92
ATOM	9243	O	MET	B	425	84.164	70.399	84.708	1.00	26.93
ATOM	9244	CB	MET	B	425	86.124	68.479	85.402	1.00	31.16
ATOM	9245	CG	MET	B	425	87.373	67.743	85.946	1.00	35.72
ATOM	9246	SD	MET	B	425	87.074	66.168	86.864	1.00	44.07
ATOM	9247	CE	MET	B	425	86.176	65.122	85.731	1.00	42.30
ATOM	9248	N	PRO	B	426	85.176	70.861	82.858	1.00	27.75
ATOM	9249	CA	PRO	B	426	83.961	71.487	82.344	1.00	26.75
ATOM	9250	C	PRO	B	426	82.736	70.537	82.296	1.00	26.04
ATOM	9251	O	PRO	B	426	81.585	70.974	82.330	1.00	25.05
ATOM	9252	CB	PRO	B	426	84.395	71.964	80.963	1.00	27.69
ATOM	9253	CG	PRO	B	426	85.901	72.089	81.072	1.00	28.01
ATOM	9254	CD	PRO	B	426	86.286	70.905	81.901	1.00	27.08
ATOM	9255	N	GLY	B	427	82.975	69.254	82.287	1.00	24.77
ATOM	9256	CA	GLY	B	427	81.901	68.298	82.172	1.00	25.53
ATOM	9257	C	GLY	B	427	81.412	67.795	83.514	1.00	25.53
ATOM	9258	O	GLY	B	427	80.577	66.894	83.557	1.00	27.27
ATOM	9259	N	GLY	B	428	81.911	68.353	84.600	1.00	24.46
ATOM	9260	CA	GLY	B	428	81.469	67.955	85.927	1.00	24.87
ATOM	9261	C	GLY	B	428	80.536	69.029	86.446	1.00	25.22
ATOM	9262	O	GLY	B	428	80.496	70.110	85.878	1.00	25.42
ATOM	9263	N	ARG	B	429	79.782	68.736	87.502	1.00	26.60
ATOM	9264	CA	ARG	B	429	78.786	69.672	88.065	1.00	26.57
ATOM	9265	C	ARG	B	429	78.664	69.495	89.593	1.00	26.15
ATOM	9266	O	ARG	B	429	78.396	68.366	90.077	1.00	25.49
ATOM	9267	CB	ARG	B	429	77.398	69.441	87.461	1.00	26.67
ATOM	9268	CG	ARG	B	429	77.292	69.587	85.922	1.00	30.09
ATOM	9269	CD	ARG	B	429	76.659	70.851	85.445	1.00	29.27
ATOM	9270	NE	ARG	B	429	76.286	70.790	84.037	1.00	33.96
ATOM	9271	CZ	ARG	B	429	75.029	70.664	83.554	1.00	37.82
ATOM	9272	NH1	ARG	B	429	73.955	70.565	84.352	1.00	36.70
ATOM	9273	NH2	ARG	B	429	74.839	70.658	82.237	1.00	40.32
ATOM	9274	N	ASN	B	430	78.820	70.596	90.347	1.00	24.43
ATOM	9275	CA	ASN	B	430	78.633	70.524	91.796	1.00	23.95
ATOM	9276	C	ASN	B	430	77.848	71.705	92.315	1.00	23.68
ATOM	9277	O	ASN	B	430	77.730	72.743	91.648	1.00	22.09
ATOM	9278	CB	ASN	B	430	79.986	70.439	92.542	1.00	24.71
ATOM	9279	CG	ASN	B	430	80.579	69.069	92.508	1.00	21.74
ATOM	9280	OD1	ASN	B	430	80.143	68.225	93.231	1.00	23.45
ATOM	9281	ND2	ASN	B	430	81.560	68.836	91.620	1.00	23.43
ATOM	9282	N	LEU	B	431	77.276	71.506	93.501	1.00	23.76
ATOM	9283	CA	LEU	B	431	76.518	72.517	94.194	1.00	23.69
ATOM	9284	C	LEU	B	431	77.396	73.352	95.107	1.00	24.86
ATOM	9285	O	LEU	B	431	78.162	72.784	95.904	1.00	24.09
ATOM	9286	CB	LEU	B	431	75.524	71.809	95.081	1.00	23.99
ATOM	9287	CG	LEU	B	431	74.567	72.713	95.859	1.00	21.86
ATOM	9288	CD1	LEU	B	431	73.714	73.587	94.974	1.00	22.04
ATOM	9289	CD2	LEU	B	431	73.682	71.849	96.637	1.00	21.87
ATOM	9290	N	TYR	B	432	77.267	74.679	95.031	1.00	25.52
ATOM	9291	CA	TYR	B	432	77.987	75.589	95.942	1.00	25.38
ATOM	9292	C	TYR	B	432	77.034	76.564	96.670	1.00	26.29
ATOM	9293	O	TYR	B	432	75.879	76.822	96.267	1.00	26.62
ATOM	9294	CB	TYR	B	432	79.083	76.397	95.231	1.00	25.14
ATOM	9295	CG	TYR	B	432	80.157	75.564	94.491	1.00	26.70
ATOM	9296	CD1	TYR	B	432	79.870	74.928	93.298	1.00	25.29

ATOM	9297	CD2	TYR	B	432	81.461	75.459	94.981	1.00 29.33
ATOM	9298	CE1	TYR	B	432	80.811	74.172	92.643	1.00 26.84
ATOM	9299	CE2	TYR	B	432	82.442	74.723	94.302	1.00 28.11
ATOM	9300	CZ	TYR	B	432	82.103	74.074	93.146	1.00 27.94
ATOM	9301	OH	TYR	B	432	83.042	73.324	92.479	1.00 27.73
ATOM	9302	N	LYS	B	433	77.586	77.137	97.715	1.00 26.07
ATOM	9303	CA	LYS	B	433	76.914	78.002	98.601	1.00 28.02
ATOM	9304	C	LYS	B	433	77.777	79.265	98.873	1.00 28.15
ATOM	9305	O	LYS	B	433	78.951	79.179	99.267	1.00 28.25
ATOM	9306	CB	LYS	B	433	76.702	77.185	99.868	1.00 27.35
ATOM	9307	CG	LYS	B	433	75.957	77.846	100.956	1.00 31.09
ATOM	9308	CD	LYS	B	433	76.123	77.047	102.240	1.00 34.56
ATOM	9309	CE	LYS	B	433	75.152	77.578	103.272	1.00 36.16
ATOM	9310	NZ	LYS	B	433	75.234	76.877	104.562	1.00 34.35
ATOM	9311	N	ILE	B	434	77.195	80.431	98.653	1.00 27.94
ATOM	9312	CA	ILE	B	434	77.888	81.680	98.925	1.00 28.10
ATOM	9313	C	ILE	B	434	77.183	82.400	100.044	1.00 27.39
ATOM	9314	O	ILE	B	434	75.950	82.589	99.989	1.00 25.69
ATOM	9315	CB	ILE	B	434	77.829	82.611	97.742	1.00 28.57
ATOM	9316	CG1	ILE	B	434	78.135	81.917	96.436	1.00 28.81
ATOM	9317	CG2	ILE	B	434	78.818	83.742	97.905	1.00 29.92
ATOM	9318	CD1	ILE	B	434	77.749	82.790	95.262	1.00 29.33
ATOM	9319	N	GLN	B	435	77.955	82.817	101.039	1.00 27.61
ATOM	9320	CA	GLN	B	435	77.449	83.693	102.094	1.00 28.32
ATOM	9321	C	GLN	B	435	77.384	85.069	101.533	1.00 27.86
ATOM	9322	O	GLN	B	435	78.388	85.589	101.142	1.00 28.87
ATOM	9323	CB	GLN	B	435	78.415	83.792	103.274	1.00 29.60
ATOM	9324	CG	GLN	B	435	78.708	82.549	103.997	1.00 32.31
ATOM	9325	CD	GLN	B	435	79.361	82.786	105.354	1.00 39.38
ATOM	9326	OE1	GLN	B	435	78.832	83.531	106.192	1.00 40.29
ATOM	9327	NE2	GLN	B	435	80.488	82.107	105.592	1.00 35.81
ATOM	9328	N	LEU	B	436	76.224	85.688	101.526	1.00 28.49
ATOM	9329	CA	LEU	B	436	76.063	86.996	100.920	1.00 28.61
ATOM	9330	C	LEU	B	436	76.790	88.146	101.680	1.00 29.22
ATOM	9331	O	LEU	B	436	76.972	89.207	101.126	1.00 28.54
ATOM	9332	CB	LEU	B	436	74.554	87.255	100.718	1.00 28.45
ATOM	9333	CG	LEU	B	436	73.897	86.104	99.912	1.00 28.99
ATOM	9334	CD1	LEU	B	436	72.411	86.225	99.772	1.00 29.93
ATOM	9335	CD2	LEU	B	436	74.557	86.016	98.503	1.00 31.60
ATOM	9336	N	SER	B	437	77.220	87.914	102.916	1.00 29.84
ATOM	9337	CA	SER	B	437	77.941	88.904	103.708	1.00 31.25
ATOM	9338	C	SER	B	437	79.450	89.025	103.325	1.00 31.20
ATOM	9339	O	SER	B	437	80.142	89.931	103.785	1.00 33.20
ATOM	9340	CB	SER	B	437	77.738	88.593	105.209	1.00 31.10
ATOM	9341	OG	SER	B	437	78.718	87.662	105.727	1.00 33.45
ATOM	9342	N	ASP	B	438	79.925	88.093	102.480	1.00 31.28
ATOM	9343	CA	ASP	B	438	81.309	88.002	102.006	1.00 31.22
ATOM	9344	C	ASP	B	438	81.383	86.943	100.866	1.00 31.12
ATOM	9345	O	ASP	B	438	81.469	85.737	101.101	1.00 29.30
ATOM	9346	CB	ASP	B	438	82.279	87.641	103.134	1.00 31.63
ATOM	9347	CG	ASP	B	438	83.732	87.507	102.655	1.00 34.50
ATOM	9348	OD1	ASP	B	438	84.011	87.584	101.430	1.00 37.97
ATOM	9349	OD2	ASP	B	438	84.675	87.335	103.457	1.00 40.92
ATOM	9350	N	TYR	B	439	81.388	87.432	99.638	1.00 31.76
ATOM	9351	CA	TYR	B	439	81.363	86.596	98.449	1.00 32.36
ATOM	9352	C	TYR	B	439	82.532	85.657	98.377	1.00 33.28
ATOM	9353	O	TYR	B	439	82.527	84.743	97.563	1.00 33.53
ATOM	9354	CB	TYR	B	439	81.310	87.472	97.182	1.00 32.45
ATOM	9355	CG	TYR	B	439	80.147	88.444	97.151	1.00 29.88
ATOM	9356	CD1	TYR	B	439	78.929	88.090	97.671	1.00 31.80
ATOM	9357	CD2	TYR	B	439	80.273	89.703	96.593	1.00 29.37
ATOM	9358	CE1	TYR	B	439	77.842	88.963	97.670	1.00 31.92
ATOM	9359	CE2	TYR	B	439	79.192	90.610	96.599	1.00 30.27
ATOM	9360	CZ	TYR	B	439	77.980	90.205	97.126	1.00 32.14
ATOM	9361	OH	TYR	B	439	76.891	91.018	97.115	1.00 32.51
ATOM	9362	N	THR	B	440	83.535	85.827	99.237	1.00 33.58
ATOM	9363	CA	THR	B	440	84.728	84.991	99.124	1.00 33.41
ATOM	9364	C	THR	B	440	84.504	83.761	99.940	1.00 33.90
ATOM	9365	O	THR	B	440	85.247	82.801	99.862	1.00 33.02
ATOM	9366	CB	THR	B	440	85.969	85.708	99.642	1.00 34.51

ATOM	9367	OG1	THR	B	440	85.790	86.038	101.022	1.00	33.37
ATOM	9368	CG2	THR	B	440	86.162	87.058	98.952	1.00	35.23
ATOM	9369	N	LYS	B	441	83.476	83.797	100.760	1.00	34.65
ATOM	9370	CA	LYS	B	441	83.162	82.649	101.570	1.00	35.47
ATOM	9371	C	LYS	B	441	82.248	81.768	100.779	1.00	34.84
ATOM	9372	O	LYS	B	441	81.042	81.992	100.765	1.00	34.38
ATOM	9373	CB	LYS	B	441	82.488	83.077	102.868	1.00	36.77
ATOM	9374	CG	LYS	B	441	83.412	83.807	103.801	1.00	40.34
ATOM	9375	CD	LYS	B	441	82.825	83.897	105.197	1.00	46.20
ATOM	9376	CE	LYS	B	441	83.650	84.855	106.066	1.00	49.13
ATOM	9377	NZ	LYS	B	441	82.871	85.350	107.231	1.00	52.95
ATOM	9378	N	VAL	B	442	82.836	80.749	100.154	1.00	34.86
ATOM	9379	CA	VAL	B	442	82.139	79.842	99.268	1.00	34.00
ATOM	9380	C	VAL	B	442	82.481	78.404	99.590	1.00	34.08
ATOM	9381	O	VAL	B	442	83.535	78.005	99.555	1.00	33.95
ATOM	9382	CB	VAL	B	442	82.496	80.051	97.796	1.00	34.34
ATOM	9383	CG1	VAL	B	442	81.530	79.260	96.932	1.00	34.20
ATOM	9384	CG2	VAL	B	442	82.433	81.507	97.403	1.00	33.73
ATOM	9385	N	THR	B	443	81.449	77.624	99.863	1.00	33.29
ATOM	9386	CA	THR	B	443	81.594	76.226	100.159	1.00	33.89
ATOM	9387	C	THR	B	443	81.036	75.347	99.037	1.00	33.32
ATOM	9388	O	THR	B	443	79.954	75.600	98.506	1.00	32.30
ATOM	9389	CB	THR	B	443	80.803	75.883	101.428	1.00	33.93
ATOM	9390	OG1	THR	B	443	81.518	76.324	102.588	1.00	36.06
ATOM	9391	CG2	THR	B	443	80.764	74.405	101.620	1.00	36.80
ATOM	9392	N	CYS	B	444	81.769	74.303	98.702	1.00	32.49
ATOM	9393	CA	CYS	B	444	81.255	73.315	97.792	1.00	32.00
ATOM	9394	C	CYS	B	444	80.508	72.321	98.639	1.00	30.90
ATOM	9395	O	CYS	B	444	81.100	71.700	99.497	1.00	31.13
ATOM	9396	CB	CYS	B	444	82.345	72.599	97.034	1.00	31.25
ATOM	9397	SG	CYS	B	444	81.517	71.608	95.740	1.00	33.54
ATOM	9398	N	LEU	B	445	79.228	72.138	98.395	1.00	29.70
ATOM	9399	CA	LEU	B	445	78.449	71.289	99.248	1.00	29.76
ATOM	9400	C	LEU	B	445	78.429	69.824	98.811	1.00	29.48
ATOM	9401	O	LEU	B	445	78.045	68.955	99.607	1.00	29.20
ATOM	9402	CB	LEU	B	445	76.985	71.752	99.351	1.00	29.21
ATOM	9403	CG	LEU	B	445	76.725	73.159	99.886	1.00	30.36
ATOM	9404	CD1	LEU	B	445	75.235	73.450	100.030	1.00	29.62
ATOM	9405	CD2	LEU	B	445	77.393	73.317	101.258	1.00	32.84
ATOM	9406	N	SER	B	446	78.819	69.546	97.574	1.00	28.92
ATOM	9407	CA	SER	B	446	78.678	68.204	97.053	1.00	29.28
ATOM	9408	C	SER	B	446	79.976	67.570	96.576	1.00	30.53
ATOM	9409	O	SER	B	446	80.015	66.361	96.435	1.00	30.85
ATOM	9410	CB	SER	B	446	77.697	68.216	95.866	1.00	29.34
ATOM	9411	OG	SER	B	446	78.343	68.793	94.730	1.00	25.10
ATOM	9412	N	CYS	B	447	81.006	68.377	96.313	1.00	31.43
ATOM	9413	CA	CYS	B	447	82.256	67.903	95.699	1.00	33.66
ATOM	9414	C	CYS	B	447	82.850	66.676	96.379	1.00	33.76
ATOM	9415	O	CYS	B	447	83.270	65.747	95.723	1.00	34.81
ATOM	9416	CB	CYS	B	447	83.336	69.024	95.735	1.00	34.48
ATOM	9417	SG	CYS	B	447	82.901	70.477	94.785	1.00	37.87
ATOM	9418	N	GLU	B	448	82.878	66.673	97.694	1.00	33.01
ATOM	9419	CA	GLU	B	448	83.555	65.608	98.408	1.00	34.22
ATOM	9420	C	GLU	B	448	82.643	64.621	99.083	1.00	33.60
ATOM	9421	O	GLU	B	448	83.107	63.862	99.927	1.00	33.36
ATOM	9422	CB	GLU	B	448	84.444	66.194	99.498	1.00	34.39
ATOM	9423	CG	GLU	B	448	85.418	67.212	98.982	1.00	38.17
ATOM	9424	CD	GLU	B	448	86.415	66.626	98.017	1.00	40.37
ATOM	9425	OE1	GLU	B	448	86.776	65.442	98.173	1.00	45.35
ATOM	9426	OE2	GLU	B	448	86.858	67.372	97.118	1.00	44.29
ATOM	9427	N	LEU	B	449	81.370	64.598	98.715	1.00	33.47
ATOM	9428	CA	LEU	B	449	80.439	63.717	99.420	1.00	33.91
ATOM	9429	C	LEU	B	449	80.726	62.247	99.103	1.00	34.37
ATOM	9430	O	LEU	B	449	80.551	61.374	99.955	1.00	33.40
ATOM	9431	CB	LEU	B	449	78.979	64.029	99.032	1.00	33.56
ATOM	9432	CG	LEU	B	449	78.270	65.247	99.619	1.00	34.92
ATOM	9433	CD1	LEU	B	449	76.909	65.461	98.934	1.00	37.34
ATOM	9434	CD2	LEU	B	449	78.067	65.109	101.125	1.00	34.58
ATOM	9435	N	ASN	B	450	81.113	61.996	97.852	1.00	34.40
ATOM	9436	CA	ASN	B	450	81.286	60.653	97.331	1.00	35.35

ATOM	9437	C	ASN	B	450	82.036	60.852	96.017	1.00	34.66
ATOM	9438	O	ASN	B	450	81.498	60.567	94.969	1.00	34.27
ATOM	9439	CB	ASN	B	450	79.911	60.067	96.990	1.00	35.97
ATOM	9440	CG	ASN	B	450	79.281	59.263	98.097	1.00	40.57
ATOM	9441	OD1	ASN	B	450	79.803	58.213	98.492	1.00	44.98
ATOM	9442	ND2	ASN	B	450	78.079	59.697	98.546	1.00	42.91
ATOM	9443	N	PRO	B	451	83.285	61.294	96.085	1.00	35.39
ATOM	9444	CA	PRO	B	451	84.036	61.820	94.919	1.00	34.92
ATOM	9445	C	PRO	B	451	84.399	60.928	93.726	1.00	35.41
ATOM	9446	O	PRO	B	451	84.689	61.437	92.662	1.00	34.70
ATOM	9447	CB	PRO	B	451	85.347	62.340	95.529	1.00	34.92
ATOM	9448	CG	PRO	B	451	85.310	62.005	97.016	1.00	36.21
ATOM	9449	CD	PRO	B	451	84.081	61.259	97.337	1.00	35.15
ATOM	9450	N	GLU	B	452	84.468	59.625	93.899	1.00	36.27
ATOM	9451	CA	GLU	B	452	84.771	58.782	92.769	1.00	36.68
ATOM	9452	C	GLU	B	452	83.504	58.377	92.047	1.00	35.32
ATOM	9453	O	GLU	B	452	83.536	58.042	90.871	1.00	35.61
ATOM	9454	CB	GLU	B	452	85.459	57.517	93.226	1.00	37.91
ATOM	9455	CG	GLU	B	452	86.958	57.644	93.324	1.00	41.25
ATOM	9456	CD	GLU	B	452	87.396	57.480	94.747	1.00	46.23
ATOM	9457	OE1	GLU	B	452	87.352	56.315	95.221	1.00	50.42
ATOM	9458	OE2	GLU	B	452	87.757	58.506	95.379	1.00	48.73
ATOM	9459	N	ARG	B	453	82.399	58.368	92.780	1.00	33.86
ATOM	9460	CA	ARG	B	453	81.134	57.969	92.228	1.00	32.45
ATOM	9461	C	ARG	B	453	80.325	59.160	91.742	1.00	31.92
ATOM	9462	O	ARG	B	453	79.527	59.049	90.813	1.00	30.67
ATOM	9463	CB	ARG	B	453	80.330	57.222	93.275	1.00	32.79
ATOM	9464	CG	ARG	B	453	79.002	56.646	92.768	1.00	31.10
ATOM	9465	CD	ARG	B	453	78.183	56.114	93.884	1.00	32.75
ATOM	9466	NE	ARG	B	453	76.827	55.806	93.497	1.00	34.45
ATOM	9467	CZ	ARG	B	453	76.050	54.974	94.169	1.00	33.89
ATOM	9468	NH1	ARG	B	453	76.521	54.366	95.252	1.00	31.33
ATOM	9469	NH2	ARG	B	453	74.803	54.737	93.766	1.00	31.42
ATOM	9470	N	CYS	B	454	80.537	60.311	92.368	1.00	30.98
ATOM	9471	CA	CYS	B	454	79.628	61.416	92.077	1.00	30.23
ATOM	9472	C	CYS	B	454	80.330	62.698	91.739	1.00	28.75
ATOM	9473	O	CYS	B	454	80.968	63.299	92.581	1.00	28.32
ATOM	9474	CB	CYS	B	454	78.722	61.596	93.271	1.00	30.58
ATOM	9475	SG	CYS	B	454	77.582	60.243	93.475	1.00	30.80
ATOM	9476	N	GLN	B	455	80.198	63.100	90.479	1.00	27.50
ATOM	9477	CA	GLN	B	455	80.859	64.284	89.977	1.00	26.27
ATOM	9478	C	GLN	B	455	79.901	65.140	89.143	1.00	25.48
ATOM	9479	O	GLN	B	455	80.327	66.147	88.624	1.00	25.25
ATOM	9480	CB	GLN	B	455	82.092	63.894	89.132	1.00	25.42
ATOM	9481	CG	GLN	B	455	83.283	63.322	89.864	1.00	27.34
ATOM	9482	CD	GLN	B	455	84.294	62.520	88.937	1.00	32.33
ATOM	9483	OE1	GLN	B	455	84.123	62.440	87.732	1.00	32.86
ATOM	9484	NE2	GLN	B	455	85.320	61.948	89.535	1.00	31.75
ATOM	9485	N	TYR	B	456	78.637	64.728	89.008	1.00	25.74
ATOM	9486	CA	TYR	B	456	77.616	65.451	89.214	1.00	26.19
ATOM	9487	C	TYR	B	456	76.305	65.566	89.017	1.00	26.13
ATOM	9488	O	TYR	B	456	75.471	64.642	89.062	1.00	26.14
ATOM	9489	CB	TYR	B	456	77.336	64.745	86.880	1.00	26.83
ATOM	9490	CG	TYR	B	456	76.775	65.604	85.763	1.00	24.10
ATOM	9491	CD1	TYR	B	456	75.408	65.856	85.647	1.00	25.09
ATOM	9492	CD2	TYR	B	456	77.613	66.155	84.811	1.00	25.81
ATOM	9493	CE1	TYR	B	456	74.884	66.645	84.564	1.00	23.20
ATOM	9494	CE2	TYR	B	456	77.120	66.931	83.752	1.00	22.75
ATOM	9495	CZ	TYR	B	456	75.759	67.171	83.632	1.00	24.21
ATOM	9496	OH	TYR	B	456	75.326	67.971	82.582	1.00	23.14
ATOM	9497	N	TYR	B	457	76.126	66.699	89.668	1.00	25.26
ATOM	9498	CA	TYR	B	457	74.969	66.874	90.535	1.00	24.93
ATOM	9499	C	TYR	B	457	73.966	67.883	89.981	1.00	25.41
ATOM	9500	O	TYR	B	457	74.353	68.823	89.273	1.00	24.40
ATOM	9501	CB	TYR	B	457	75.416	67.413	91.887	1.00	25.11
ATOM	9502	CG	TYR	B	457	76.131	66.426	92.804	1.00	24.76
ATOM	9503	CD1	TYR	B	457	75.407	65.643	93.682	1.00	26.61
ATOM	9504	CD2	TYR	B	457	77.505	66.326	92.832	1.00	23.91
ATOM	9505	CE1	TYR	B	457	76.013	64.761	94.544	1.00	25.28
ATOM	9506	CE2	TYR	B	457	78.142	65.414	93.694	1.00	26.22

ATOM	9507	CZ	TYR	B	457	77.378	64.647	94.538	1.00	25.74
ATOM	9508	OH	TYR	B	457	77.941	63.748	95.387	1.00	29.90
ATOM	9509	N	SER	B	458	72.684	67.629	90.267	1.00	25.31
ATOM	9510	CA	SER	B	458	71.622	68.618	90.197	1.00	26.57
ATOM	9511	C	SER	B	458	70.940	68.599	91.598	1.00	26.57
ATOM	9512	O	SER	B	458	71.214	67.736	92.401	1.00	25.56
ATOM	9513	CB	SER	B	458	70.614	68.261	89.113	1.00	26.59
ATOM	9514	OG	SER	B	458	69.964	67.072	89.530	1.00	30.73
ATOM	9515	N	VAL	B	459	70.047	69.541	91.890	1.00	27.82
ATOM	9516	CA	VAL	B	459	69.487	69.668	93.224	1.00	27.00
ATOM	9517	C	VAL	B	459	68.062	70.172	93.170	1.00	27.58
ATOM	9518	O	VAL	B	459	67.659	70.785	92.199	1.00	25.23
ATOM	9519	CB	VAL	B	459	70.333	70.681	94.044	1.00	28.32
ATOM	9520	CG1	VAL	B	459	70.239	72.074	93.432	1.00	28.21
ATOM	9521	CG2	VAL	B	459	69.956	70.722	95.464	1.00	28.98
ATOM	9522	N	SER	B	460	67.335	69.956	94.266	1.00	27.43
ATOM	9523	CA	SER	B	460	65.971	70.433	94.415	1.00	28.37
ATOM	9524	C	SER	B	460	65.756	70.855	95.861	1.00	28.75
ATOM	9525	O	SER	B	460	65.780	70.030	96.748	1.00	29.69
ATOM	9526	CB	SER	B	460	65.001	69.318	93.967	1.00	29.10
ATOM	9527	OG	SER	B	460	63.716	69.512	94.466	1.00	29.79
ATOM	9528	N	PHE	B	461	65.597	72.150	96.096	1.00	28.74
ATOM	9529	CA	PHE	B	461	65.476	72.713	97.416	1.00	28.88
ATOM	9530	C	PHE	B	461	64.022	72.821	97.845	1.00	29.45
ATOM	9531	O	PHE	B	461	63.196	73.183	97.053	1.00	28.41
ATOM	9532	CB	PHE	B	461	66.075	74.133	97.446	1.00	28.68
ATOM	9533	CG	PHE	B	461	67.584	74.176	97.514	1.00	28.23
ATOM	9534	CD1	PHE	B	461	68.236	74.124	98.718	1.00	26.64
ATOM	9535	CD2	PHE	B	461	68.342	74.261	96.371	1.00	28.54
ATOM	9536	CE1	PHE	B	461	69.598	74.160	98.786	1.00	27.72
ATOM	9537	CE2	PHE	B	461	69.735	74.294	96.440	1.00	26.16
ATOM	9538	CZ	PHE	B	461	70.348	74.239	97.627	1.00	26.94
ATOM	9539	N	SER	B	462	63.725	72.550	99.117	1.00	29.82
ATOM	9540	CA	SER	B	462	62.365	72.769	99.641	1.00	31.14
ATOM	9541	C	SER	B	462	61.999	74.273	99.620	1.00	32.09
ATOM	9542	O	SER	B	462	62.755	75.097	99.142	1.00	30.13
ATOM	9543	CB	SER	B	462	62.281	72.302	101.084	1.00	29.40
ATOM	9544	OG	SER	B	462	63.140	73.116	101.864	1.00	29.33
ATOM	9545	N	LYS	B	463	60.854	74.641	100.183	1.00	34.66
ATOM	9546	CA	LYS	B	463	60.551	76.073	100.309	1.00	36.75
ATOM	9547	C	LYS	B	463	61.505	76.702	101.311	1.00	36.72
ATOM	9548	O	LYS	B	463	61.863	76.081	102.329	1.00	37.78
ATOM	9549	CB	LYS	B	463	59.107	76.336	100.715	1.00	37.72
ATOM	9550	CG	LYS	B	463	58.093	76.100	99.634	1.00	40.79
ATOM	9551	CD	LYS	B	463	56.699	76.615	100.104	1.00	46.74
ATOM	9552	CE	LYS	B	463	55.580	76.397	99.045	1.00	48.05
ATOM	9553	NZ	LYS	B	463	54.302	77.053	99.434	1.00	48.81
ATOM	9554	N	GLU	B	464	61.952	77.917	101.008	1.00	36.96
ATOM	9555	CA	GLU	B	464	62.874	78.661	101.882	1.00	37.22
ATOM	9556	C	GLU	B	464	64.215	77.977	102.016	1.00	35.82
ATOM	9557	O	GLU	B	464	65.014	78.325	102.887	1.00	34.26
ATOM	9558	CB	GLU	B	464	62.326	78.889	103.291	1.00	38.30
ATOM	9559	CG	GLU	B	464	60.963	79.522	103.408	1.00	43.61
ATOM	9560	CD	GLU	B	464	60.676	79.872	104.853	1.00	50.71
ATOM	9561	OE1	GLU	B	464	60.442	78.922	105.651	1.00	55.30
ATOM	9562	OE2	GLU	B	464	60.724	81.087	105.204	1.00	53.88
ATOM	9563	N	ALA	B	465	64.465	77.006	101.148	1.00	35.12
ATOM	9564	CA	ALA	B	465	65.737	76.298	101.157	1.00	34.85
ATOM	9565	C	ALA	B	465	66.163	75.705	102.523	1.00	34.02
ATOM	9566	O	ALA	B	465	67.347	75.684	102.857	1.00	33.87
ATOM	9567	CB	ALA	B	465	66.832	77.210	100.607	1.00	35.11
ATOM	9568	N	LYS	B	466	65.204	75.158	103.268	1.00	34.17
ATOM	9569	CA	LYS	B	466	65.492	74.466	104.537	1.00	34.05
ATOM	9570	C	LYS	B	466	66.128	73.096	104.314	1.00	33.03
ATOM	9571	O	LYS	B	466	66.928	72.628	105.126	1.00	33.44
ATOM	9572	CB	LYS	B	466	64.214	74.266	105.322	1.00	34.59
ATOM	9573	CG	LYS	B	466	64.380	74.568	106.755	1.00	37.18
ATOM	9574	CD	LYS	B	466	63.201	74.139	107.580	1.00	41.58
ATOM	9575	CE	LYS	B	466	63.616	73.940	109.037	1.00	43.50
ATOM	9576	NZ	LYS	B	466	62.774	72.833	109.527	1.00	45.13

ATOM	9577	N	TYR	B	467	65.747	72.462	103.215	1.00	31.59
ATOM	9578	CA	TYR	B	467	66.300	71.177	102.860	1.00	30.73
ATOM	9579	C	TYR	B	467	66.474	71.070	101.358	1.00	29.96
ATOM	9580	O	TYR	B	467	65.889	71.837	100.604	1.00	28.87
ATOM	9581	CB	TYR	B	467	65.382	70.042	103.319	1.00	31.25
ATOM	9582	CG	TYR	B	467	65.066	70.028	104.796	1.00	30.99
ATOM	9583	CD1	TYR	B	467	63.998	70.738	105.304	1.00	33.27
ATOM	9584	CD2	TYR	B	467	65.800	69.281	105.673	1.00	30.15
ATOM	9585	CE1	TYR	B	467	63.686	70.704	106.688	1.00	33.81
ATOM	9586	CE2	TYR	B	467	65.500	69.262	107.043	1.00	32.44
ATOM	9587	CZ	TYR	B	467	64.443	69.986	107.533	1.00	32.21
ATOM	9588	OH	TYR	B	467	64.127	69.954	108.883	1.00	32.73
ATOM	9589	N	TYR	B	468	67.287	70.106	100.940	1.00	29.46
ATOM	9590	CA	TYR	B	468	67.547	69.847	99.537	1.00	28.49
ATOM	9591	C	TYR	B	468	67.794	68.381	99.253	1.00	28.61
ATOM	9592	O	TYR	B	468	68.358	67.645	100.095	1.00	28.77
ATOM	9593	CB	TYR	B	468	68.707	70.709	99.012	1.00	27.78
ATOM	9594	CG	TYR	B	468	70.088	70.640	99.691	1.00	28.05
ATOM	9595	CD1	TYR	B	468	70.398	71.471	100.759	1.00	28.76
ATOM	9596	CD2	TYR	B	468	71.101	69.816	99.211	1.00	28.66
ATOM	9597	CE1	TYR	B	468	71.641	71.444	101.357	1.00	28.54
ATOM	9598	CE2	TYR	B	468	72.367	69.793	99.805	1.00	28.13
ATOM	9599	CZ	TYR	B	468	72.617	70.623	100.880	1.00	27.70
ATOM	9600	OH	TYR	B	468	73.837	70.630	101.527	1.00	27.01
ATOM	9601	N	GLN	B	469	67.333	67.947	98.078	1.00	28.39
ATOM	9602	CA	GLN	B	469	67.655	66.620	97.552	1.00	27.88
ATOM	9603	C	GLN	B	469	68.787	66.762	96.570	1.00	27.66
ATOM	9604	O	GLN	B	469	68.701	67.579	95.670	1.00	26.59
ATOM	9605	CB	GLN	B	469	66.480	66.001	96.776	1.00	28.62
ATOM	9606	CG	GLN	B	469	66.748	64.572	96.227	1.00	26.39
ATOM	9607	CD	GLN	B	469	65.749	64.143	95.130	1.00	28.98
ATOM	9608	OE1	GLN	B	469	65.374	64.939	94.301	1.00	31.48
ATOM	9609	NE2	GLN	B	469	65.268	62.896	95.193	1.00	29.61
ATOM	9610	N	LEU	B	470	69.840	65.968	96.730	1.00	27.61
ATOM	9611	CA	LEU	B	470	70.898	65.928	95.754	1.00	28.28
ATOM	9612	C	LEU	B	470	70.746	64.731	94.849	1.00	28.23
ATOM	9613	O	LEU	B	470	70.341	63.656	95.304	1.00	27.32
ATOM	9614	CB	LEU	B	470	72.279	65.892	96.388	1.00	27.67
ATOM	9615	CG	LEU	B	470	72.785	67.229	96.904	1.00	30.41
ATOM	9616	CD1	LEU	B	470	74.044	66.988	97.626	1.00	28.59
ATOM	9617	CD2	LEU	B	470	72.985	68.289	95.801	1.00	31.31
ATOM	9618	N	ARG	B	471	71.059	64.950	93.568	1.00	28.24
ATOM	9619	CA	ARG	B	471	70.967	63.945	92.522	1.00	29.03
ATOM	9620	C	ARG	B	471	72.295	63.882	91.765	1.00	29.35
ATOM	9621	O	ARG	B	471	72.635	64.753	90.965	1.00	26.50
ATOM	9622	CB	ARG	B	471	69.859	64.231	91.485	1.00	30.47
ATOM	9623	CG	ARG	B	471	70.105	63.401	90.148	1.00	35.53
ATOM	9624	CD	ARG	B	471	68.872	63.172	89.177	1.00	42.75
ATOM	9625	NE	ARG	B	471	68.849	64.130	88.078	1.00	47.16
ATOM	9626	CZ	ARG	B	471	67.781	64.435	87.344	1.00	51.84
ATOM	9627	NH1	ARG	B	471	66.603	63.840	87.555	1.00	52.12
ATOM	9628	NH2	ARG	B	471	67.905	65.353	86.389	1.00	51.86
ATOM	9629	N	CYS	B	472	73.039	62.843	92.071	1.00	29.45
ATOM	9630	CA	CYS	B	472	74.273	62.560	91.411	1.00	30.96
ATOM	9631	C	CYS	B	472	73.955	61.712	90.186	1.00	29.94
ATOM	9632	O	CYS	B	472	73.263	60.743	90.315	1.00	29.73
ATOM	9633	CB	CYS	B	472	75.137	61.782	92.412	1.00	31.75
ATOM	9634	SG	CYS	B	472	76.340	60.578	91.768	1.00	36.58
ATOM	9635	N	SER	B	473	74.462	62.081	89.014	1.00	29.26
ATOM	9636	CA	SER	B	473	74.212	61.325	87.795	1.00	29.27
ATOM	9637	C	SER	B	473	75.397	60.566	87.258	1.00	27.53
ATOM	9638	O	SER	B	473	75.282	59.961	86.221	1.00	27.50
ATOM	9639	CB	SER	B	473	73.731	62.245	86.684	1.00	28.76
ATOM	9640	OG	SER	B	473	72.382	62.487	86.896	1.00	32.10
ATOM	9641	N	GLY	B	474	76.525	60.578	87.943	1.00	26.50
ATOM	9642	CA	GLY	B	474	77.666	59.806	87.503	1.00	25.47
ATOM	9643	C	GLY	B	474	78.932	60.365	88.098	1.00	25.87
ATOM	9644	O	GLY	B	474	78.846	61.403	88.770	1.00	25.00
ATOM	9645	N	PRO	B	475	80.108	59.796	87.778	1.00	26.49
ATOM	9646	CA	PRO	B	475	80.259	58.688	86.820	1.00	26.73

ATOM	9647	C	PRO	B	475	79.769	57.375	87.280	1.00	27.39
ATOM	9648	O	PRO	B	475	79.668	56.558	86.405	1.00	26.57
ATOM	9649	CB	PRO	B	475	81.782	58.574	86.624	1.00	27.70
ATOM	9650	CG	PRO	B	475	82.343	59.123	87.911	1.00	26.66
ATOM	9651	CD	PRO	B	475	81.427	60.304	88.212	1.00	26.62
ATOM	9652	N	GLY	B	476	79.483	57.177	88.578	1.00	27.70
ATOM	9653	CA	GLY	B	476	78.979	55.898	89.060	1.00	26.91
ATOM	9654	C	GLY	B	476	77.468	55.857	88.895	1.00	27.17
ATOM	9655	O	GLY	B	476	76.858	56.716	88.201	1.00	26.20
ATOM	9656	N	LEU	B	477	76.854	54.849	89.489	1.00	27.44
ATOM	9657	CA	LEU	B	477	75.414	54.730	89.460	1.00	29.14
ATOM	9658	C	LEU	B	477	74.786	55.907	90.179	1.00	29.25
ATOM	9659	O	LEU	B	477	75.281	56.352	91.229	1.00	28.98
ATOM	9660	CB	LEU	B	477	74.986	53.436	90.149	1.00	29.87
ATOM	9661	CG	LEU	B	477	75.705	52.213	89.586	1.00	33.15
ATOM	9662	CD1	LEU	B	477	75.080	50.971	90.149	1.00	35.05
ATOM	9663	CD2	LEU	B	477	75.645	52.212	88.035	1.00	35.43
ATOM	9664	N	PRO	B	478	73.711	56.434	89.610	1.00	29.49
ATOM	9665	CA	PRO	B	478	72.984	57.552	90.226	1.00	28.80
ATOM	9666	C	PRO	B	478	72.717	57.345	91.708	1.00	28.27
ATOM	9667	O	PRO	B	478	72.384	56.230	92.132	1.00	28.59
ATOM	9668	CB	PRO	B	478	71.673	57.577	89.432	1.00	28.93
ATOM	9669	CG	PRO	B	478	72.099	57.117	88.030	1.00	29.83
ATOM	9670	CD	PRO	B	478	73.115	56.029	88.325	1.00	29.62
ATOM	9671	N	LEU	B	479	72.806	58.431	92.462	1.00	27.47
ATOM	9672	CA	LEU	B	479	72.659	58.444	93.903	1.00	27.62
ATOM	9673	C	LEU	B	479	71.794	59.627	94.339	1.00	26.96
ATOM	9674	O	LEU	B	479	72.108	60.779	94.071	1.00	25.61
ATOM	9675	CB	LEU	B	479	74.048	58.628	94.544	1.00	28.55
ATOM	9676	CG	LEU	B	479	74.281	57.974	95.893	1.00	31.83
ATOM	9677	CD1	LEU	B	479	75.361	58.642	96.719	1.00	33.40
ATOM	9678	CD2	LEU	B	479	73.037	57.890	96.694	1.00	33.81
ATOM	9679	N	TYR	B	480	70.711	59.355	95.023	1.00	26.74
ATOM	9680	CA	TYR	B	480	69.848	60.420	95.438	1.00	27.84
ATOM	9681	C	TYR	B	480	69.858	60.524	96.971	1.00	27.91
ATOM	9682	O	TYR	B	480	69.579	59.543	97.693	1.00	28.12
ATOM	9683	CB	TYR	B	480	68.423	60.190	94.938	1.00	28.47
ATOM	9684	CG	TYR	B	480	68.258	60.043	93.408	1.00	28.87
ATOM	9685	CD1	TYR	B	480	68.722	58.922	92.727	1.00	29.58
ATOM	9686	CD2	TYR	B	480	67.591	61.015	92.679	1.00	30.14
ATOM	9687	CE1	TYR	B	480	68.538	58.785	91.304	1.00	29.30
ATOM	9688	CE2	TYR	B	480	67.423	60.911	91.295	1.00	31.04
ATOM	9689	CZ	TYR	B	480	67.909	59.797	90.613	1.00	30.37
ATOM	9690	OH	TYR	B	480	67.703	59.712	89.257	1.00	32.11
ATOM	9691	N	THR	B	481	70.133	61.717	97.460	1.00	27.62
ATOM	9692	CA	THR	B	481	70.252	61.928	98.888	1.00	28.14
ATOM	9693	C	THR	B	481	69.454	63.124	99.348	1.00	28.12
ATOM	9694	O	THR	B	481	69.095	64.012	98.546	1.00	26.65
ATOM	9695	CB	THR	B	481	71.713	62.164	99.225	1.00	28.73
ATOM	9696	OG1	THR	B	481	72.253	63.151	98.338	1.00	29.12
ATOM	9697	CG2	THR	B	481	72.567	60.907	98.947	1.00	28.66
ATOM	9698	N	LEU	B	482	69.180	63.137	100.649	1.00	28.65
ATOM	9699	CA	LEU	B	482	68.458	64.229	101.282	1.00	28.48
ATOM	9700	C	LEU	B	482	69.356	64.914	102.280	1.00	29.11
ATOM	9701	O	LEU	B	482	70.196	64.291	102.924	1.00	28.32
ATOM	9702	CB	LEU	B	482	67.177	63.752	101.924	1.00	28.28
ATOM	9703	CG	LEU	B	482	66.102	64.833	102.044	1.00	28.91
ATOM	9704	CD1	LEU	B	482	65.650	65.377	100.720	1.00	26.67
ATOM	9705	CD2	LEU	B	482	64.906	64.302	102.821	1.00	27.26
ATOM	9706	N	HIS	B	483	69.178	66.229	102.397	1.00	29.12
ATOM	9707	CA	HIS	B	483	70.073	67.026	103.203	1.00	28.26
ATOM	9708	C	HIS	B	483	69.396	68.181	103.927	1.00	28.91
ATOM	9709	O	HIS	B	483	68.454	68.801	103.416	1.00	27.89
ATOM	9710	CB	HIS	B	483	71.131	67.637	102.290	1.00	28.44
ATOM	9711	CG	HIS	B	483	72.123	66.657	101.762	1.00	27.09
ATOM	9712	ND1	HIS	B	483	71.965	66.011	100.548	1.00	29.70
ATOM	9713	CD2	HIS	B	483	73.265	66.179	102.303	1.00	27.79
ATOM	9714	CE1	HIS	B	483	72.987	65.191	100.362	1.00	30.77
ATOM	9715	NE2	HIS	B	483	73.793	65.278	101.408	1.00	26.04
ATOM	9716	N	SER	B	484	69.944	68.538	105.085	1.00	29.00

ATOM	9717	CA	SER	B	484	69.468	69.698	105.842	1.00	29.39
ATOM	9718	C	SER	B	484	70.397	70.903	105.664	1.00	29.47
ATOM	9719	O	SER	B	484	71.614	70.785	105.718	1.00	27.76
ATOM	9720	CB	SER	B	484	69.306	69.338	107.296	1.00	29.27
ATOM	9721	OG	SER	B	484	69.382	70.500	108.077	1.00	32.58
ATOM	9722	N	SER	B	485	69.807	72.066	105.400	1.00	30.49
ATOM	9723	CA	SER	B	485	70.572	73.268	105.094	1.00	31.59
ATOM	9724	C	SER	B	485	71.282	73.943	106.272	1.00	31.58
ATOM	9725	O	SER	B	485	72.350	74.536	106.096	1.00	32.69
ATOM	9726	CB	SER	B	485	69.661	74.289	104.418	1.00	31.58
ATOM	9727	OG	SER	B	485	69.465	73.987	103.049	1.00	31.48
ATOM	9728	N	VAL	B	486	70.729	73.850	107.462	1.00	34.59
ATOM	9729	CA	VAL	B	486	71.284	74.659	108.534	1.00	36.93
ATOM	9730	C	VAL	B	486	72.762	74.420	108.654	1.00	36.73
ATOM	9731	O	VAL	B	486	73.536	75.376	108.644	1.00	37.87
ATOM	9732	CB	VAL	B	486	70.646	74.455	109.933	1.00	38.37
ATOM	9733	CG1	VAL	B	486	70.631	75.824	110.673	1.00	40.52
ATOM	9734	CG2	VAL	B	486	69.283	73.863	109.863	1.00	37.95
ATOM	9735	N	ASN	B	487	73.149	73.163	108.782	1.00	36.88
ATOM	9736	CA	ASN	B	487	74.559	72.803	108.783	1.00	37.65
ATOM	9737	C	ASN	B	487	74.925	71.855	107.656	1.00	37.06
ATOM	9738	O	ASN	B	487	75.924	71.176	107.720	1.00	36.28
ATOM	9739	CB	ASN	B	487	74.953	72.198	110.124	1.00	38.31
ATOM	9740	CG	ASN	B	487	75.105	73.257	111.203	1.00	42.08
ATOM	9741	OD1	ASN	B	487	74.366	73.264	112.190	1.00	45.04
ATOM	9742	ND2	ASN	B	487	76.044	74.175	111.002	1.00	44.16
ATOM	9743	N	ASP	B	488	74.104	71.813	106.621	1.00	37.01
ATOM	9744	CA	ASP	B	488	74.351	70.945	105.488	1.00	36.95
ATOM	9745	C	ASP	B	488	74.672	69.537	105.924	1.00	36.35
ATOM	9746	O	ASP	B	488	75.630	68.959	105.452	1.00	36.59
ATOM	9747	CB	ASP	B	488	75.479	71.483	104.624	1.00	36.37
ATOM	9748	CG	ASP	B	488	75.113	72.793	103.972	1.00	36.30
ATOM	9749	OD1	ASP	B	488	74.391	72.777	102.954	1.00	32.54
ATOM	9750	OD2	ASP	B	488	75.479	73.886	104.423	1.00	34.83
ATOM	9751	N	LYS	B	489	73.878	68.995	106.828	1.00	35.78
ATOM	9752	CA	LYS	B	489	74.103	67.639	107.249	1.00	36.75
ATOM	9753	C	LYS	B	489	73.393	66.684	106.292	1.00	35.41
ATOM	9754	O	LYS	B	489	72.326	67.022	105.761	1.00	33.88
ATOM	9755	CB	LYS	B	489	73.583	67.402	108.665	1.00	37.41
ATOM	9756	CG	LYS	B	489	73.970	66.006	109.152	1.00	43.10
ATOM	9757	CD	LYS	B	489	73.914	65.802	110.666	1.00	47.45
ATOM	9758	CE	LYS	B	489	74.643	64.498	111.029	1.00	49.75
ATOM	9759	NZ	LYS	B	489	73.966	63.784	112.162	1.00	52.01
ATOM	9760	N	GLY	B	490	74.010	65.519	106.069	1.00	33.74
ATOM	9761	CA	GLY	B	490	73.389	64.429	105.323	1.00	33.26
ATOM	9762	C	GLY	B	490	72.260	63.858	106.173	1.00	32.76
ATOM	9763	O	GLY	B	490	72.438	63.624	107.347	1.00	32.36
ATOM	9764	N	LEU	B	491	71.055	63.734	105.636	1.00	33.01
ATOM	9765	CA	LEU	B	491	69.974	63.157	106.427	1.00	33.73
ATOM	9766	C	LEU	B	491	69.923	61.654	106.250	1.00	34.58
ATOM	9767	O	LEU	B	491	69.950	60.918	107.206	1.00	32.32
ATOM	9768	CB	LEU	B	491	68.624	63.745	106.026	1.00	33.78
ATOM	9769	CG	LEU	B	491	68.517	65.161	106.584	1.00	36.24
ATOM	9770	CD1	LEU	B	491	67.357	65.934	105.994	1.00	37.30
ATOM	9771	CD2	LEU	B	491	68.376	65.069	108.117	1.00	38.67
ATOM	9772	N	ARG	B	492	69.904	61.234	104.982	1.00	35.31
ATOM	9773	CA	ARG	B	492	69.635	59.865	104.603	1.00	36.20
ATOM	9774	C	ARG	B	492	70.301	59.591	103.277	1.00	36.65
ATOM	9775	O	ARG	B	492	71.191	60.333	102.829	1.00	42.14
ATOM	9776	CB	ARG	B	492	68.153	59.765	104.305	1.00	36.71
ATOM	9777	CG	ARG	B	492	67.302	59.179	105.321	1.00	38.38
ATOM	9778	CD	ARG	B	492	65.846	59.766	105.368	1.00	37.82
ATOM	9779	NE	ARG	B	492	65.740	60.571	106.570	1.00	37.08
ATOM	9780	CZ	ARG	B	492	65.113	61.712	106.676	1.00	36.90
ATOM	9781	NH1	ARG	B	492	64.458	62.231	105.651	1.00	37.47
ATOM	9782	NH2	ARG	B	492	65.141	62.343	107.836	1.00	37.23
ATOM	9783	N	VAL	B	493	69.743	58.579	102.634	1.00	34.01
ATOM	9784	CA	VAL	B	493	70.026	58.130	101.285	1.00	31.94
ATOM	9785	C	VAL	B	493	68.606	57.792	100.799	1.00	30.58
ATOM	9786	O	VAL	B	493	67.872	57.111	101.479	1.00	29.50

ATOM	9787	CB	VAL	B	493	70.865	56.823	101.237	1.00	32.57
ATOM	9788	CG1	VAL	B	493	70.785	56.170	99.856	1.00	32.60
ATOM	9789	CG2	VAL	B	493	72.359	57.060	101.638	1.00	30.30
ATOM	9790	N	LEU	B	494	68.182	58.335	99.668	1.00	29.23
ATOM	9791	CA	LEU	B	494	66.841	58.051	99.168	1.00	28.90
ATOM	9792	C	LEU	B	494	66.799	56.875	98.178	1.00	28.74
ATOM	9793	O	LEU	B	494	65.873	56.074	98.206	1.00	28.66
ATOM	9794	CB	LEU	B	494	66.238	59.316	98.529	1.00	28.87
ATOM	9795	CG	LEU	B	494	66.174	60.493	99.513	1.00	28.66
ATOM	9796	CD1	LEU	B	494	66.005	61.778	98.767	1.00	30.43
ATOM	9797	CD2	LEU	B	494	65.057	60.283	100.491	1.00	28.40
ATOM	9798	N	GLU	B	495	67.786	56.795	97.302	1.00	28.15
ATOM	9799	CA	GLU	B	495	67.887	55.707	96.379	1.00	27.95
ATOM	9800	C	GLU	B	495	69.337	55.586	95.978	1.00	28.14
ATOM	9801	O	GLU	B	495	69.961	56.580	95.585	1.00	27.78
ATOM	9802	CB	GLU	B	495	67.032	55.973	95.150	1.00	28.63
ATOM	9803	CG	GLU	B	495	67.354	55.054	93.983	1.00	28.25
ATOM	9804	CD	GLU	B	495	66.934	53.629	94.279	1.00	27.99
ATOM	9805	OE1	GLU	B	495	65.762	53.446	94.588	1.00	28.05
ATOM	9806	OE2	GLU	B	495	67.775	52.715	94.225	1.00	29.19
ATOM	9807	N	ASP	B	496	69.892	54.384	96.073	1.00	28.51
ATOM	9808	CA	ASP	B	496	71.311	54.212	95.778	1.00	29.15
ATOM	9809	C	ASP	B	496	71.593	53.254	94.667	1.00	29.08
ATOM	9810	O	ASP	B	496	72.753	52.957	94.382	1.00	28.40
ATOM	9811	CB	ASP	B	496	72.096	53.812	97.023	1.00	29.89
ATOM	9812	CG	ASP	B	496	71.724	52.460	97.552	1.00	31.02
ATOM	9813	OD1	ASP	B	496	71.067	51.659	96.856	1.00	35.67
ATOM	9814	OD2	ASP	B	496	72.039	52.119	98.687	1.00	34.89
ATOM	9815	N	ASN	B	497	70.517	52.797	94.026	1.00	30.29
ATOM	9816	CA	ASN	B	497	70.582	51.889	92.893	1.00	29.79
ATOM	9817	C	ASN	B	497	71.361	50.576	93.166	1.00	30.49
ATOM	9818	O	ASN	B	497	71.994	50.019	92.256	1.00	30.08
ATOM	9819	CB	ASN	B	497	71.171	52.639	91.702	1.00	30.35
ATOM	9820	CG	ASN	B	497	70.102	53.332	90.851	1.00	30.90
ATOM	9821	OD1	ASN	B	497	69.234	52.671	90.257	1.00	32.35
ATOM	9822	ND2	ASN	B	497	70.201	54.647	90.732	1.00	30.45
ATOM	9823	N	SER	B	498	71.332	50.098	94.415	1.00	31.45
ATOM	9824	CA	SER	B	498	71.999	48.843	94.787	1.00	32.80
ATOM	9825	C	SER	B	498	71.441	47.651	93.976	1.00	33.07
ATOM	9826	O	SER	B	498	72.184	46.767	93.603	1.00	32.06
ATOM	9827	CB	SER	B	498	71.924	48.571	96.304	1.00	33.14
ATOM	9828	OG	SER	B	498	70.582	48.684	96.811	1.00	35.98
ATOM	9829	N	ALA	B	499	70.158	47.673	93.627	1.00	33.72
ATOM	9830	CA	ALA	B	499	69.624	46.581	92.847	1.00	34.12
ATOM	9831	C	ALA	B	499	70.327	46.512	91.515	1.00	34.76
ATOM	9832	O	ALA	B	499	70.775	45.437	91.109	1.00	34.90
ATOM	9833	CB	ALA	B	499	68.133	46.713	92.645	1.00	34.02
ATOM	9834	N	LEU	B	500	70.457	47.660	90.848	1.00	35.42
ATOM	9835	CA	LEU	B	500	71.099	47.714	89.528	1.00	35.59
ATOM	9836	C	LEU	B	500	72.545	47.234	89.678	1.00	35.28
ATOM	9837	O	LEU	B	500	73.070	46.446	88.882	1.00	34.53
ATOM	9838	CB	LEU	B	500	71.062	49.159	88.981	1.00	34.97
ATOM	9839	CG	LEU	B	500	71.027	49.422	87.471	1.00	37.81
ATOM	9840	CD1	LEU	B	500	71.798	50.707	87.044	1.00	37.23
ATOM	9841	CD2	LEU	B	500	71.501	48.241	86.654	1.00	36.80
ATOM	9842	N	ASP	B	501	73.167	47.709	90.734	1.00	35.54
ATOM	9843	CA	ASP	B	501	74.569	47.395	91.038	1.00	36.79
ATOM	9844	C	ASP	B	501	74.796	45.879	91.053	1.00	36.68
ATOM	9845	O	ASP	B	501	75.735	45.371	90.410	1.00	34.68
ATOM	9846	CB	ASP	B	501	74.939	48.008	92.403	1.00	37.28
ATOM	9847	CG	ASP	B	501	76.433	47.924	92.714	1.00	39.44
ATOM	9848	OD1	ASP	B	501	77.265	48.026	91.803	1.00	39.64
ATOM	9849	OD2	ASP	B	501	76.866	47.768	93.877	1.00	47.25
ATOM	9850	N	LYS	B	502	73.898	45.171	91.744	1.00	37.33
ATOM	9851	CA	LYS	B	502	73.987	43.718	91.841	1.00	39.36
ATOM	9852	C	LYS	B	502	73.823	43.087	90.464	1.00	38.86
ATOM	9853	O	LYS	B	502	74.649	42.281	90.098	1.00	37.72
ATOM	9854	CB	LYS	B	502	73.046	43.111	92.925	1.00	39.93
ATOM	9855	CG	LYS	B	502	73.774	43.104	94.326	1.00	44.28
ATOM	9856	CD	LYS	B	502	72.979	42.616	95.592	1.00	50.35

ATOM	9857	CE	LYS	B	502	73.659	43.132	96.928	1.00	52.43
ATOM	9858	NZ	LYS	B	502	73.915	42.088	98.002	1.00	52.50
ATOM	9859	N	MET	B	503	72.807	43.489	89.699	1.00	38.71
ATOM	9860	CA	MET	B	503	72.674	42.995	88.322	1.00	39.36
ATOM	9861	C	MET	B	503	73.907	43.319	87.458	1.00	38.16
ATOM	9862	O	MET	B	503	74.358	42.498	86.698	1.00	38.26
ATOM	9863	CB	MET	B	503	71.441	43.584	87.651	1.00	39.98
ATOM	9864	CG	MET	B	503	70.136	42.959	88.096	1.00	44.31
ATOM	9865	SD	MET	B	503	68.772	43.508	87.082	1.00	51.44
ATOM	9866	CE	MET	B	503	68.643	45.197	87.624	1.00	52.23
ATOM	9867	N	LEU	B	504	74.492	44.497	87.592	1.00	38.11
ATOM	9868	CA	LEU	B	504	75.578	44.868	86.672	1.00	37.49
ATOM	9869	C	LEU	B	504	76.902	44.113	86.877	1.00	38.02
ATOM	9870	O	LEU	B	504	77.662	43.874	85.915	1.00	36.62
ATOM	9871	CB	LEU	B	504	75.778	46.381	86.679	1.00	36.89
ATOM	9872	CG	LEU	B	504	74.661	47.111	85.894	1.00	36.85
ATOM	9873	CD1	LEU	B	504	74.774	48.625	86.012	1.00	36.54
ATOM	9874	CD2	LEU	B	504	74.606	46.721	84.398	1.00	36.84
ATOM	9875	N	GLN	B	505	77.151	43.715	88.125	1.00	38.71
ATOM	9876	CA	GLN	B	505	78.328	42.934	88.458	1.00	39.81
ATOM	9877	C	GLN	B	505	78.379	41.669	87.594	1.00	39.33
ATOM	9878	O	GLN	B	505	79.428	41.163	87.366	1.00	37.85
ATOM	9879	CB	GLN	B	505	78.398	42.623	89.983	1.00	40.66
ATOM	9880	CG	GLN	B	505	78.882	43.837	90.863	1.00	43.70
ATOM	9881	CD	GLN	B	505	78.675	43.624	92.373	1.00	48.71
ATOM	9882	OE1	GLN	B	505	78.565	42.483	92.828	1.00	53.18
ATOM	9883	NE2	GLN	B	505	78.609	44.725	93.148	1.00	50.14
ATOM	9884	N	ASN	B	506	77.238	41.162	87.126	1.00	40.26
ATOM	9885	CA	ASN	B	506	77.246	40.027	86.185	1.00	40.96
ATOM	9886	C	ASN	B	506	77.392	40.357	84.692	1.00	39.89
ATOM	9887	O	ASN	B	506	77.086	39.526	83.856	1.00	41.00
ATOM	9888	CB	ASN	B	506	75.991	39.186	86.344	1.00	41.01
ATOM	9889	CG	ASN	B	506	75.866	38.596	87.737	1.00	44.86
ATOM	9890	OD1	ASN	B	506	76.847	38.085	88.280	1.00	47.76
ATOM	9891	ND2	ASN	B	506	74.660	38.685	88.336	1.00	45.29
ATOM	9892	N	VAL	B	507	77.846	41.541	84.326	1.00	39.73
ATOM	9893	CA	VAL	B	507	77.972	41.834	82.899	1.00	39.38
ATOM	9894	C	VAL	B	507	79.276	42.499	82.603	1.00	38.86
ATOM	9895	O	VAL	B	507	79.876	43.126	83.464	1.00	38.82
ATOM	9896	CB	VAL	B	507	76.728	42.619	82.312	1.00	39.16
ATOM	9897	CG1	VAL	B	507	76.185	43.507	83.274	1.00	39.25
ATOM	9898	CG2	VAL	B	507	77.074	43.370	81.001	1.00	39.86
ATOM	9899	N	GLN	B	508	79.764	42.299	81.397	1.00	38.32
ATOM	9900	CA	GLN	B	508	81.007	42.929	81.008	1.00	38.75
ATOM	9901	C	GLN	B	508	80.707	44.357	80.558	1.00	38.50
ATOM	9902	O	GLN	B	508	80.597	44.636	79.384	1.00	38.85
ATOM	9903	CB	GLN	B	508	81.712	42.146	79.904	1.00	38.76
ATOM	9904	CG	GLN	B	508	81.790	40.648	80.165	1.00	39.75
ATOM	9905	CD	GLN	B	508	82.822	39.949	79.313	1.00	38.27
ATOM	9906	OE1	GLN	B	508	83.768	40.550	78.850	1.00	39.71
ATOM	9907	NE2	GLN	B	508	82.637	38.658	79.114	1.00	38.73
ATOM	9908	N	MET	B	509	80.585	45.246	81.527	1.00	38.00
ATOM	9909	CA	MET	B	509	80.310	46.635	81.267	1.00	37.57
ATOM	9910	C	MET	B	509	81.524	47.344	80.710	1.00	36.16
ATOM	9911	O	MET	B	509	82.628	47.031	81.051	1.00	36.25
ATOM	9912	CB	MET	B	509	79.876	47.311	82.560	1.00	37.43
ATOM	9913	CG	MET	B	509	78.539	46.824	83.006	1.00	38.53
ATOM	9914	SD	MET	B	509	77.297	47.127	81.754	1.00	42.19
ATOM	9915	CE	MET	B	509	77.117	48.812	81.941	1.00	41.34
ATOM	9916	N	PRO	B	510	81.300	48.300	79.831	1.00	34.57
ATOM	9917	CA	PRO	B	510	82.376	49.102	79.288	1.00	33.86
ATOM	9918	C	PRO	B	510	82.774	50.098	80.333	1.00	32.76
ATOM	9919	O	PRO	B	510	82.014	50.241	81.244	1.00	31.08
ATOM	9920	CB	PRO	B	510	81.700	49.901	78.187	1.00	33.77
ATOM	9921	CG	PRO	B	510	80.316	49.835	78.421	1.00	33.46
ATOM	9922	CD	PRO	B	510	79.990	48.710	79.336	1.00	34.56
ATOM	9923	N	SER	B	511	83.899	50.774	80.166	1.00	32.79
ATOM	9924	CA	SER	B	511	84.280	51.877	81.033	1.00	33.68
ATOM	9925	C	SER	B	511	84.307	53.151	80.178	1.00	34.32
ATOM	9926	O	SER	B	511	84.276	53.084	78.955	1.00	33.49

ATOM	9927	CB	SER	B	511	85.686	51.678	81.567	1.00 33.29
ATOM	9928	OG	SER	B	511	86.548	51.743	80.467	1.00 32.77
ATOM	9929	N	LYS	B	512	84.486	54.284	80.852	1.00 35.20
ATOM	9930	CA	LYS	B	512	84.432	55.594	80.247	1.00 35.05
ATOM	9931	C	LYS	B	512	85.666	56.384	80.609	1.00 35.24
ATOM	9932	O	LYS	B	512	86.055	56.478	81.783	1.00 35.24
ATOM	9933	CB	LYS	B	512	83.177	56.322	80.747	1.00 35.16
ATOM	9934	CG	LYS	B	512	82.882	57.666	80.076	1.00 34.89
ATOM	9935	CD	LYS	B	512	81.520	58.200	80.523	1.00 31.54
ATOM	9936	CE	LYS	B	512	81.212	59.556	79.895	1.00 31.66
ATOM	9937	NZ	LYS	B	512	79.844	60.196	80.379	1.00 30.68
ATOM	9938	N	LYS	B	513	86.308	56.926	79.588	1.00 34.66
ATOM	9939	CA	LYS	B	513	87.422	57.811	79.789	1.00 34.55
ATOM	9940	C	LYS	B	513	86.985	59.227	79.377	1.00 33.27
ATOM	9941	O	LYS	B	513	86.400	59.410	78.302	1.00 32.86
ATOM	9942	CB	LYS	B	513	88.582	57.355	78.914	1.00 35.28
ATOM	9943	CG	LYS	B	513	89.911	57.867	79.360	1.00 38.42
ATOM	9944	CD	LYS	B	513	90.834	58.109	78.151	1.00 42.99
ATOM	9945	CE	LYS	B	513	92.356	58.129	78.533	1.00 43.66
ATOM	9946	NZ	LYS	B	513	93.216	58.331	77.286	1.00 45.03
ATOM	9947	N	LEU	B	514	87.317	60.193	80.225	1.00 31.88
ATOM	9948	CA	LEU	B	514	87.053	61.623	80.103	1.00 32.15
ATOM	9949	C	LEU	B	514	88.411	62.317	80.196	1.00 32.80
ATOM	9950	O	LEU	B	514	89.101	62.203	81.224	1.00 31.05
ATOM	9951	CB	LEU	B	514	86.226	62.083	81.299	1.00 32.55
ATOM	9952	CG	LEU	B	514	85.150	63.166	81.171	1.00 35.94
ATOM	9953	CD1	LEU	B	514	84.978	63.884	82.488	1.00 35.20
ATOM	9954	CD2	LEU	B	514	85.384	64.165	80.046	1.00 37.34
ATOM	9955	N	ASP	B	515	88.803	63.044	79.154	1.00 33.60
ATOM	9956	CA	ASP	B	515	90.157	63.628	79.091	1.00 33.94
ATOM	9957	C	ASP	B	515	90.149	64.734	78.048	1.00 33.67
ATOM	9958	O	ASP	B	515	89.094	65.114	77.563	1.00 32.82
ATOM	9959	CB	ASP	B	515	91.142	62.547	78.675	1.00 34.54
ATOM	9960	CG	ASP	B	515	92.569	62.806	79.134	1.00 37.60
ATOM	9961	OD1	ASP	B	515	92.889	63.930	79.590	1.00 37.94
ATOM	9962	OD2	ASP	B	515	93.428	61.893	79.085	1.00 39.77
ATOM	9963	N	PHE	B	516	91.307	65.257	77.690	1.00 34.11
ATOM	9964	CA	PHE	B	516	91.348	66.335	76.720	1.00 35.27
ATOM	9965	C	PHE	B	516	92.548	66.256	75.791	1.00 36.20
ATOM	9966	O	PHE	B	516	93.502	65.580	76.089	1.00 35.24
ATOM	9967	CB	PHE	B	516	91.345	67.673	77.432	1.00 35.14
ATOM	9968	CG	PHE	B	516	92.512	67.863	78.341	1.00 37.49
ATOM	9969	CD1	PHE	B	516	93.738	68.247	77.843	1.00 37.88
ATOM	9970	CD2	PHE	B	516	92.400	67.606	79.709	1.00 37.60
ATOM	9971	CE1	PHE	B	516	94.831	68.408	78.699	1.00 39.15
ATOM	9972	CE2	PHE	B	516	93.484	67.777	80.558	1.00 37.83
ATOM	9973	CZ	PHE	B	516	94.690	68.171	80.062	1.00 38.26
ATOM	9974	N	ILE	B	517	92.436	66.922	74.638	1.00 37.39
ATOM	9975	CA	ILE	B	517	93.513	67.051	73.677	1.00 38.97
ATOM	9976	C	ILE	B	517	93.673	68.531	73.511	1.00 39.81
ATOM	9977	O	ILE	B	517	92.835	69.307	73.953	1.00 39.05
ATOM	9978	CB	ILE	B	517	93.203	66.452	72.271	1.00 39.15
ATOM	9979	CG1	ILE	B	517	91.788	66.798	71.825	1.00 39.44
ATOM	9980	CG2	ILE	B	517	93.393	64.974	72.266	1.00 40.32
ATOM	9981	CD1	ILE	B	517	91.429	66.206	70.534	1.00 40.76
ATOM	9982	N	ILE	B	518	94.752	68.900	72.846	1.00 40.72
ATOM	9983	CA	ILE	B	518	95.088	70.276	72.615	1.00 41.90
ATOM	9984	C	ILE	B	518	94.874	70.476	71.158	1.00 42.73
ATOM	9985	O	ILE	B	518	95.324	69.688	70.362	1.00 44.34
ATOM	9986	CB	ILE	B	518	96.573	70.515	72.857	1.00 42.61
ATOM	9987	CG1	ILE	B	518	96.979	69.981	74.279	1.00 41.35
ATOM	9988	CG2	ILE	B	518	96.920	71.993	72.712	1.00 43.42
ATOM	9989	CD1	ILE	B	518	96.412	70.764	75.432	1.00 40.08
ATOM	9990	N	LEU	B	519	94.162	71.503	70.788	1.00 43.62
ATOM	9991	CA	LEU	B	519	94.045	71.842	69.387	1.00 44.63
ATOM	9992	C	LEU	B	519	94.407	73.301	69.372	1.00 44.70
ATOM	9993	O	LEU	B	519	93.726	74.111	69.973	1.00 43.61
ATOM	9994	CB	LEU	B	519	92.621	71.638	68.847	1.00 44.70
ATOM	9995	CG	LEU	B	519	92.252	70.377	68.061	1.00 46.16
ATOM	9996	CD1	LEU	B	519	92.594	69.095	68.773	1.00 47.42

ATOM	9997	CD2	LEU	B	519	90.767	70.403	67.732	1.00	46.83
ATOM	9998	N	ASN	B	520	95.531	73.623	68.747	1.00	45.98
ATOM	9999	CA	ASN	B	520	95.927	75.005	68.595	1.00	46.60
ATOM	10000	C	ASN	B	520	95.971	75.772	69.875	1.00	46.05
ATOM	10001	O	ASN	B	520	95.267	76.770	70.030	1.00	46.58
ATOM	10002	CB	ASN	B	520	94.967	75.712	67.629	1.00	46.98
ATOM	10003	CG	ASN	B	520	95.511	75.757	66.248	1.00	49.34
ATOM	10004	OD1	ASN	B	520	96.647	75.308	66.033	1.00	51.14
ATOM	10005	ND2	ASN	B	520	94.742	76.314	65.291	1.00	49.12
ATOM	10006	N	GLU	B	521	96.781	75.311	70.803	1.00	45.72
ATOM	10007	CA	GLU	B	521	96.954	76.038	72.054	1.00	45.79
ATOM	10008	C	GLU	B	521	95.832	75.864	73.051	1.00	44.04
ATOM	10009	O	GLU	B	521	95.960	76.346	74.189	1.00	45.10
ATOM	10010	CB	GLU	B	521	97.053	77.555	71.797	1.00	47.02
ATOM	10011	CG	GLU	B	521	98.446	78.176	71.813	1.00	50.35
ATOM	10012	CD	GLU	B	521	98.397	79.707	71.986	1.00	53.77
ATOM	10013	OE1	GLU	B	521	97.369	80.234	72.479	1.00	51.60
ATOM	10014	OE2	GLU	B	521	99.397	80.385	71.635	1.00	57.13
ATOM	10015	N	THR	B	522	94.716	75.247	72.661	1.00	41.38
ATOM	10016	CA	THR	B	522	93.586	75.164	73.595	1.00	38.96
ATOM	10017	C	THR	B	522	93.209	73.746	74.005	1.00	36.68
ATOM	10018	O	THR	B	522	93.399	72.791	73.270	1.00	34.63
ATOM	10019	CB	THR	B	522	92.328	75.864	72.997	1.00	39.60
ATOM	10020	OG1	THR	B	522	92.560	77.277	72.831	1.00	38.31
ATOM	10021	CG2	THR	B	522	91.126	75.759	73.977	1.00	38.25
ATOM	10022	N	LYS	B	523	92.637	73.634	75.192	1.00	34.80
ATOM	10023	CA	LYS	B	523	92.145	72.359	75.667	1.00	33.28
ATOM	10024	C	LYS	B	523	90.781	72.060	75.086	1.00	30.81
ATOM	10025	O	LYS	B	523	89.830	72.859	75.224	1.00	28.33
ATOM	10026	CB	LYS	B	523	91.939	72.389	77.167	1.00	33.48
ATOM	10027	CG	LYS	B	523	93.135	72.259	78.039	1.00	37.54
ATOM	10028	CD	LYS	B	523	92.604	72.123	79.487	1.00	41.59
ATOM	10029	CE	LYS	B	523	93.644	71.666	80.482	1.00	45.90
ATOM	10030	NZ	LYS	B	523	92.930	71.329	81.773	1.00	48.02
ATOM	10031	N	PHE	B	524	90.641	70.889	74.494	1.00	29.69
ATOM	10032	CA	PHE	B	524	89.278	70.448	74.102	1.00	29.81
ATOM	10033	C	PHE	B	524	89.023	69.054	74.626	1.00	28.20
ATOM	10034	O	PHE	B	524	89.818	68.140	74.401	1.00	28.48
ATOM	10035	CB	PHE	B	524	89.100	70.495	72.623	1.00	29.61
ATOM	10036	CG	PHE	B	524	89.034	71.877	72.082	1.00	31.07
ATOM	10037	CD1	PHE	B	524	87.851	72.583	72.101	1.00	30.34
ATOM	10038	CD2	PHE	B	524	90.146	72.466	71.536	1.00	30.96
ATOM	10039	CE1	PHE	B	524	87.806	73.832	71.632	1.00	30.24
ATOM	10040	CE2	PHE	B	524	90.087	73.723	71.051	1.00	29.57
ATOM	10041	CZ	PHE	B	524	88.933	74.402	71.079	1.00	28.05
ATOM	10042	N	TRP	B	525	87.923	68.905	75.345	1.00	26.62
ATOM	10043	CA	TRP	B	525	87.602	67.652	76.004	1.00	25.72
ATOM	10044	C	TRP	B	525	86.908	66.623	75.126	1.00	25.25
ATOM	10045	O	TRP	B	525	86.174	66.974	74.195	1.00	24.05
ATOM	10046	CB	TRP	B	525	86.732	67.965	77.216	1.00	25.79
ATOM	10047	CG	TRP	B	525	87.455	68.732	78.277	1.00	27.63
ATOM	10048	CD1	TRP	B	525	87.758	70.073	78.275	1.00	27.16
ATOM	10049	CD2	TRP	B	525	88.017	68.192	79.477	1.00	29.89
ATOM	10050	NE1	TRP	B	525	88.463	70.390	79.407	1.00	31.50
ATOM	10051	CE2	TRP	B	525	88.634	69.255	80.166	1.00	30.31
ATOM	10052	CE3	TRP	B	525	88.075	66.904	80.030	1.00	30.50
ATOM	10053	CZ2	TRP	B	525	89.270	69.086	81.386	1.00	30.73
ATOM	10054	CZ3	TRP	B	525	88.697	66.730	81.249	1.00	31.25
ATOM	10055	CH2	TRP	B	525	89.290	67.823	81.923	1.00	31.94
ATOM	10056	N	TYR	B	526	87.121	65.356	75.449	1.00	24.69
ATOM	10057	CA	TYR	B	526	86.422	64.269	74.801	1.00	25.76
ATOM	10058	C	TYR	B	526	86.160	63.161	75.804	1.00	25.33
ATOM	10059	O	TYR	B	526	86.720	63.184	76.895	1.00	25.36
ATOM	10060	CB	TYR	B	526	87.260	63.675	73.664	1.00	26.43
ATOM	10061	CG	TYR	B	526	88.489	62.959	74.141	1.00	29.07
ATOM	10062	CD1	TYR	B	526	89.675	63.649	74.354	1.00	30.32
ATOM	10063	CD2	TYR	B	526	88.466	61.605	74.380	1.00	32.46
ATOM	10064	CE1	TYR	B	526	90.807	63.009	74.809	1.00	32.27
ATOM	10065	CE2	TYR	B	526	89.594	60.943	74.818	1.00	36.27
ATOM	10066	CZ	TYR	B	526	90.772	61.657	75.029	1.00	36.33

ATOM	10067	OH	TYR	B	526	91.899	60.992	75.453	1.00	38.46
ATOM	10068	N	GLN	B	527	85.284	62.222	75.439	1.00	25.09
ATOM	10069	CA	GLN	B	527	85.060	60.994	76.189	1.00	25.08
ATOM	10070	C	GLN	B	527	85.163	59.824	75.238	1.00	26.26
ATOM	10071	O	GLN	B	527	84.866	59.952	74.021	1.00	26.67
ATOM	10072	CB	GLN	B	527	83.670	60.932	76.904	1.00	25.67
ATOM	10073	CG	GLN	B	527	82.391	61.144	76.040	1.00	24.49
ATOM	10074	CD	GLN	B	527	81.106	60.932	76.867	1.00	26.97
ATOM	10075	OE1	GLN	B	527	80.956	61.540	77.952	1.00	24.92
ATOM	10076	NE2	GLN	B	527	80.187	60.047	76.379	1.00	24.49
ATOM	10077	N	MET	B	528	85.608	58.691	75.773	1.00	27.54
ATOM	10078	CA	MET	B	528	85.525	57.424	75.062	1.00	28.64
ATOM	10079	C	MET	B	528	84.841	56.371	75.930	1.00	28.90
ATOM	10080	O	MET	B	528	85.150	56.202	77.127	1.00	28.28
ATOM	10081	CB	MET	B	528	86.891	56.882	74.673	1.00	28.81
ATOM	10082	CG	MET	B	528	87.784	57.848	73.914	1.00	31.74
ATOM	10083	SD	MET	B	528	89.285	57.067	73.244	1.00	29.83
ATOM	10084	CE	MET	B	528	89.692	58.217	72.070	1.00	29.90
ATOM	10085	N	ILE	B	529	83.915	55.659	75.312	1.00	29.12
ATOM	10086	CA	ILE	B	529	83.330	54.488	75.899	1.00	29.94
ATOM	10087	C	ILE	B	529	84.141	53.290	75.398	1.00	30.98
ATOM	10088	O	ILE	B	529	84.114	52.986	74.198	1.00	30.01
ATOM	10089	CB	ILE	B	529	81.866	54.401	75.481	1.00	30.15
ATOM	10090	CG1	ILE	B	529	81.154	55.633	76.046	1.00	32.73
ATOM	10091	CG2	ILE	B	529	81.281	53.175	76.084	1.00	29.20
ATOM	10092	CD1	ILE	B	529	79.855	55.866	75.526	1.00	37.12
ATOM	10093	N	LEU	B	530	84.865	52.626	76.311	1.00	31.29
ATOM	10094	CA	LEU	B	530	85.788	51.554	75.924	1.00	31.73
ATOM	10095	C	LEU	B	530	85.256	50.178	76.240	1.00	31.76
ATOM	10096	O	LEU	B	530	84.612	49.949	77.283	1.00	32.88
ATOM	10097	CB	LEU	B	530	87.140	51.727	76.613	1.00	32.22
ATOM	10098	CG	LEU	B	530	87.690	53.151	76.564	1.00	33.27
ATOM	10099	CD1	LEU	B	530	88.595	53.449	77.722	1.00	35.58
ATOM	10100	CD2	LEU	B	530	88.414	53.337	75.272	1.00	34.59
ATOM	10101	N	PRO	B	531	85.511	49.245	75.346	1.00	31.94
ATOM	10102	CA	PRO	B	531	85.110	47.863	75.585	1.00	32.83
ATOM	10103	C	PRO	B	531	85.674	47.323	76.913	1.00	33.43
ATOM	10104	O	PRO	B	531	86.714	47.735	77.390	1.00	31.92
ATOM	10105	CB	PRO	B	531	85.738	47.102	74.417	1.00	32.20
ATOM	10106	CG	PRO	B	531	85.898	48.097	73.360	1.00	32.54
ATOM	10107	CD	PRO	B	531	86.176	49.419	74.045	1.00	32.48
ATOM	10108	N	PRO	B	532	85.012	46.330	77.443	1.00	35.12
ATOM	10109	CA	PRO	B	532	85.471	45.710	78.677	1.00	37.14
ATOM	10110	C	PRO	B	532	86.816	45.052	78.373	1.00	38.82
ATOM	10111	O	PRO	B	532	87.105	44.764	77.204	1.00	39.18
ATOM	10112	CB	PRO	B	532	84.402	44.675	78.985	1.00	37.36
ATOM	10113	CG	PRO	B	532	83.577	44.523	77.738	1.00	36.74
ATOM	10114	CD	PRO	B	532	83.878	45.636	76.816	1.00	35.14
ATOM	10115	N	HIS	B	533	87.640	44.862	79.396	1.00	41.03
ATOM	10116	CA	HIS	B	533	88.966	44.280	79.212	1.00	42.46
ATOM	10117	C	HIS	B	533	89.682	45.018	78.103	1.00	43.42
ATOM	10118	O	HIS	B	533	90.328	44.421	77.263	1.00	44.13
ATOM	10119	CB	HIS	B	533	88.854	42.805	78.863	1.00	42.84
ATOM	10120	CG	HIS	B	533	88.023	42.033	79.831	1.00	43.24
ATOM	10121	ND1	HIS	B	533	87.031	41.164	79.437	1.00	43.68
ATOM	10122	CD2	HIS	B	533	88.016	42.023	81.184	1.00	46.76
ATOM	10123	CE1	HIS	B	533	86.454	40.639	80.505	1.00	44.62
ATOM	10124	NE2	HIS	B	533	87.028	41.150	81.578	1.00	46.14
ATOM	10125	N	PHE	B	534	89.531	46.326	78.083	1.00	43.97
ATOM	10126	CA	PHE	B	534	90.203	47.128	77.080	1.00	44.87
ATOM	10127	C	PHE	B	534	91.678	46.784	77.047	1.00	45.83
ATOM	10128	O	PHE	B	534	92.276	46.550	78.082	1.00	46.41
ATOM	10129	CB	PHE	B	534	90.040	48.594	77.432	1.00	44.17
ATOM	10130	CG	PHE	B	534	90.647	49.507	76.454	1.00	44.16
ATOM	10131	CD1	PHE	B	534	90.300	49.438	75.124	1.00	45.18
ATOM	10132	CD2	PHE	B	534	91.558	50.466	76.863	1.00	45.36
ATOM	10133	CE1	PHE	B	534	90.844	50.306	74.200	1.00	45.22
ATOM	10134	CE2	PHE	B	534	92.107	51.337	75.958	1.00	46.95
ATOM	10135	CZ	PHE	B	534	91.745	51.248	74.602	1.00	46.30
ATOM	10136	N	ASP	B	535	92.281	46.770	75.871	1.00	46.97

ATOM	10137	CA	ASP	B	535	93.705	46.471	75.775	1.00	47.32
ATOM	10138	C	ASP	B	535	94.317	47.342	74.721	1.00	47.18
ATOM	10139	O	ASP	B	535	94.052	47.138	73.557	1.00	46.48
ATOM	10140	CB	ASP	B	535	93.932	45.013	75.400	1.00	47.73
ATOM	10141	CG	ASP	B	535	95.405	44.720	75.057	1.00	49.55
ATOM	10142	OD1	ASP	B	535	96.253	45.647	75.162	1.00	50.88
ATOM	10143	OD2	ASP	B	535	95.797	43.608	74.653	1.00	49.57
ATOM	10144	N	LYS	B	536	95.150	48.297	75.126	1.00	47.86
ATOM	10145	CA	LYS	B	536	95.718	49.278	74.195	1.00	48.50
ATOM	10146	C	LYS	B	536	96.760	48.780	73.184	1.00	48.52
ATOM	10147	O	LYS	B	536	97.236	49.576	72.363	1.00	47.71
ATOM	10148	CB	LYS	B	536	96.286	50.480	74.944	1.00	49.03
ATOM	10149	CG	LYS	B	536	97.480	50.191	75.880	1.00	52.28
ATOM	10150	CD	LYS	B	536	97.644	51.365	76.881	1.00	55.15
ATOM	10151	CE	LYS	B	536	98.639	51.039	78.025	1.00	57.36
ATOM	10152	NZ	LYS	B	536	98.718	52.151	79.040	1.00	56.81
ATOM	10153	N	SER	B	537	97.103	47.496	73.210	1.00	48.46
ATOM	10154	CA	SER	B	537	98.028	46.973	72.208	1.00	49.13
ATOM	10155	C	SER	B	537	97.243	46.475	70.993	1.00	49.24
ATOM	10156	O	SER	B	537	97.824	45.991	70.009	1.00	49.23
ATOM	10157	CB	SER	B	537	98.896	45.860	72.785	1.00	49.28
ATOM	10158	OG	SER	B	537	98.097	44.746	73.152	1.00	50.50
ATOM	10159	N	LYS	B	538	95.916	46.590	71.063	1.00	48.47
ATOM	10160	CA	LYS	B	538	95.075	46.210	69.931	1.00	47.89
ATOM	10161	C	LYS	B	538	94.537	47.443	69.249	1.00	46.38
ATOM	10162	O	LYS	B	538	94.581	48.545	69.788	1.00	46.40
ATOM	10163	CB	LYS	B	538	93.899	45.336	70.373	1.00	48.32
ATOM	10164	CG	LYS	B	538	94.264	43.869	70.583	1.00	50.04
ATOM	10165	CD	LYS	B	538	93.423	43.238	71.688	1.00	52.37
ATOM	10166	CE	LYS	B	538	94.133	42.062	72.398	1.00	53.34
ATOM	10167	NZ	LYS	B	538	93.285	40.818	72.399	1.00	53.62
ATOM	10168	N	LYS	B	539	94.022	47.262	68.050	1.00	44.87
ATOM	10169	CA	LYS	B	539	93.405	48.369	67.358	1.00	43.55
ATOM	10170	C	LYS	B	539	91.914	48.090	67.297	1.00	40.89
ATOM	10171	O	LYS	B	539	91.524	47.076	66.789	1.00	40.49
ATOM	10172	CB	LYS	B	539	94.033	48.530	65.973	1.00	44.47
ATOM	10173	CG	LYS	B	539	95.538	48.675	66.038	1.00	45.62
ATOM	10174	CD	LYS	B	539	96.074	49.677	65.051	1.00	47.78
ATOM	10175	CE	LYS	B	539	97.484	50.141	65.445	1.00	48.95
ATOM	10176	NZ	LYS	B	539	97.610	51.616	65.209	1.00	50.32
ATOM	10177	N	TYR	B	540	91.100	48.969	67.889	1.00	38.45
ATOM	10178	CA	TYR	B	540	89.641	48.855	67.858	1.00	35.25
ATOM	10179	C	TYR	B	540	89.085	49.795	66.805	1.00	34.02
ATOM	10180	O	TYR	B	540	89.690	50.825	66.525	1.00	33.35
ATOM	10181	CB	TYR	B	540	89.030	49.243	69.212	1.00	34.98
ATOM	10182	CG	TYR	B	540	89.520	48.404	70.374	1.00	32.83
ATOM	10183	CD1	TYR	B	540	90.776	48.578	70.885	1.00	33.15
ATOM	10184	CD2	TYR	B	540	88.742	47.423	70.902	1.00	32.68
ATOM	10185	CE1	TYR	B	540	91.228	47.809	71.912	1.00	34.42
ATOM	10186	CE2	TYR	B	540	89.169	46.640	71.916	1.00	33.22
ATOM	10187	CZ	TYR	B	540	90.420	46.832	72.421	1.00	33.72
ATOM	10188	OH	TYR	B	540	90.856	46.047	73.430	1.00	32.51
ATOM	10189	N	PRO	B	541	87.954	49.430	66.204	1.00	32.50
ATOM	10190	CA	PRO	B	541	87.208	50.343	65.337	1.00	31.98
ATOM	10191	C	PRO	B	541	86.599	51.474	66.176	1.00	31.61
ATOM	10192	O	PRO	B	541	86.225	51.267	67.314	1.00	31.17
ATOM	10193	CB	PRO	B	541	86.109	49.453	64.786	1.00	32.02
ATOM	10194	CG	PRO	B	541	85.926	48.454	65.866	1.00	32.49
ATOM	10195	CD	PRO	B	541	87.305	48.111	66.277	1.00	32.29
ATOM	10196	N	LEU	B	542	86.537	52.671	65.619	1.00	31.70
ATOM	10197	CA	LEU	B	542	86.027	53.796	66.352	1.00	31.15
ATOM	10198	C	LEU	B	542	84.801	54.432	65.736	1.00	30.44
ATOM	10199	O	LEU	B	542	84.798	54.793	64.525	1.00	29.93
ATOM	10200	CB	LEU	B	542	87.102	54.872	66.465	1.00	32.05
ATOM	10201	CG	LEU	B	542	86.691	55.940	67.489	1.00	34.95
ATOM	10202	CD1	LEU	B	542	87.860	56.396	68.295	1.00	35.53
ATOM	10203	CD2	LEU	B	542	86.030	57.086	66.798	1.00	35.86
ATOM	10204	N	LEU	B	543	83.784	54.608	66.586	1.00	29.46
ATOM	10205	CA	LEU	B	543	82.586	55.368	66.227	1.00	29.14
ATOM	10206	C	LEU	B	543	82.555	56.698	66.958	1.00	28.16

ATOM	10207	O	LEU	B	543	82.537	56.755	68.212	1.00	28.34
ATOM	10208	CB	LEU	B	543	81.329	54.600	66.579	1.00	29.73
ATOM	10209	CG	LEU	B	543	80.002	55.227	66.202	1.00	30.86
ATOM	10210	CD1	LEU	B	543	78.876	54.568	66.950	1.00	29.26
ATOM	10211	CD2	LEU	B	543	80.047	56.664	66.530	1.00	36.44
ATOM	10212	N	LEU	B	544	82.536	57.769	66.190	1.00	26.68
ATOM	10213	CA	LEU	B	544	82.401	59.105	66.760	1.00	26.88
ATOM	10214	C	LEU	B	544	80.904	59.502	66.795	1.00	27.16
ATOM	10215	O	LEU	B	544	80.256	59.720	65.735	1.00	26.33
ATOM	10216	CB	LEU	B	544	83.171	60.079	65.918	1.00	26.04
ATOM	10217	CG	LEU	B	544	83.254	61.524	66.311	1.00	27.83
ATOM	10218	CD1	LEU	B	544	84.240	61.777	67.414	1.00	28.08
ATOM	10219	CD2	LEU	B	544	83.663	62.290	65.115	1.00	31.47
ATOM	10220	N	ASP	B	545	80.377	59.541	68.019	1.00	26.72
ATOM	10221	CA	ASP	B	545	79.019	59.952	68.320	1.00	26.49
ATOM	10222	C	ASP	B	545	79.052	61.471	68.519	1.00	26.44
ATOM	10223	O	ASP	B	545	79.704	61.954	69.427	1.00	24.96
ATOM	10224	CB	ASP	B	545	78.543	59.222	69.552	1.00	26.52
ATOM	10225	CG	ASP	B	545	77.240	59.745	70.081	1.00	28.25
ATOM	10226	OD1	ASP	B	545	76.638	60.688	69.494	1.00	31.33
ATOM	10227	OD2	ASP	B	545	76.751	59.265	71.091	1.00	29.13
ATOM	10228	N	VAL	B	546	78.403	62.200	67.611	1.00	26.32
ATOM	10229	CA	VAL	B	546	78.468	63.659	67.571	1.00	26.13
ATOM	10230	C	VAL	B	546	77.144	64.381	67.756	1.00	25.53
ATOM	10231	O	VAL	B	546	76.100	63.921	67.300	1.00	25.95
ATOM	10232	CB	VAL	B	546	79.046	64.135	66.206	1.00	26.98
ATOM	10233	CG1	VAL	B	546	78.388	63.436	65.031	1.00	29.08
ATOM	10234	CG2	VAL	B	546	78.880	65.635	66.016	1.00	27.58
ATOM	10235	N	TYR	B	547	77.173	65.525	68.423	1.00	25.15
ATOM	10236	CA	TYR	B	547	76.002	66.388	68.456	1.00	25.44
ATOM	10237	C	TYR	B	547	76.560	67.668	67.953	1.00	25.50
ATOM	10238	O	TYR	B	547	76.371	67.991	66.794	1.00	24.39
ATOM	10239	CB	TYR	B	547	75.324	66.549	69.854	1.00	25.83
ATOM	10240	CG	TYR	B	547	74.125	67.470	69.728	1.00	26.34
ATOM	10241	CD1	TYR	B	547	72.982	67.064	68.992	1.00	26.01
ATOM	10242	CD2	TYR	B	547	74.141	68.760	70.256	1.00	26.81
ATOM	10243	CE1	TYR	B	547	71.875	67.901	68.834	1.00	23.53
ATOM	10244	CE2	TYR	B	547	73.047	69.620	70.111	1.00	23.51
ATOM	10245	CZ	TYR	B	547	71.933	69.192	69.351	1.00	24.77
ATOM	10246	OH	TYR	B	547	70.885	70.024	69.172	1.00	19.38
ATOM	10247	N	ALA	B	548	77.254	68.387	68.860	1.00	25.88
ATOM	10248	CA	ALA	B	548	78.052	69.568	68.561	1.00	24.96
ATOM	10249	C	ALA	B	548	77.318	70.841	68.194	1.00	24.67
ATOM	10250	O	ALA	B	548	77.898	71.723	67.623	1.00	23.45
ATOM	10251	CB	ALA	B	548	79.087	69.238	67.493	1.00	26.28
ATOM	10252	N	GLY	B	549	76.050	70.966	68.542	1.00	25.80
ATOM	10253	CA	GLY	B	549	75.344	72.240	68.353	1.00	25.68
ATOM	10254	C	GLY	B	549	75.859	73.322	69.335	1.00	26.52
ATOM	10255	O	GLY	B	549	76.501	73.033	70.370	1.00	24.55
ATOM	10256	N	PRO	B	550	75.584	74.570	69.005	1.00	27.31
ATOM	10257	CA	PRO	B	550	76.015	75.694	69.819	1.00	28.20
ATOM	10258	C	PRO	B	550	75.621	75.464	71.271	1.00	28.35
ATOM	10259	O	PRO	B	550	74.472	75.140	71.498	1.00	26.88
ATOM	10260	CB	PRO	B	550	75.212	76.869	69.264	1.00	28.88
ATOM	10261	CG	PRO	B	550	74.711	76.461	67.951	1.00	29.49
ATOM	10262	CD	PRO	B	550	74.844	74.988	67.808	1.00	28.76
ATOM	10263	N	CYS	B	551	76.579	75.576	72.190	1.00	28.41
ATOM	10264	CA	CYS	B	551	76.368	75.469	73.645	1.00	29.87
ATOM	10265	C	CYS	B	551	76.268	74.041	74.183	1.00	29.72
ATOM	10266	O	CYS	B	551	76.151	73.840	75.388	1.00	28.91
ATOM	10267	CB	CYS	B	551	75.140	76.259	74.131	1.00	30.07
ATOM	10268	SG	CYS	B	551	74.882	77.910	73.466	1.00	36.88
ATOM	10269	N	SER	B	552	76.353	73.047	73.314	1.00	29.28
ATOM	10270	CA	SER	B	552	76.260	71.681	73.761	1.00	29.02
ATOM	10271	C	SER	B	552	77.538	71.129	74.374	1.00	27.88
ATOM	10272	O	SER	B	552	78.649	71.647	74.221	1.00	28.06
ATOM	10273	CB	SER	B	552	75.885	70.784	72.583	1.00	29.55
ATOM	10274	OG	SER	B	552	76.966	70.759	71.674	1.00	32.67
ATOM	10275	N	GLN	B	553	77.347	70.024	75.047	1.00	27.04
ATOM	10276	CA	GLN	B	553	78.404	69.312	75.723	1.00	26.04

ATOM	10277	C	GLN	B	553	78.065	67.857	75.650	1.00	25.26
ATOM	10278	O	GLN	B	553	77.026	67.447	76.167	1.00	23.05
ATOM	10279	CB	GLN	B	553	78.451	69.697	77.197	1.00	25.65
ATOM	10280	CG	GLN	B	553	79.552	68.978	77.973	1.00	24.70
ATOM	10281	CD	GLN	B	553	79.844	69.624	79.349	1.00	26.63
ATOM	10282	OE1	GLN	B	553	79.084	69.437	80.312	1.00	25.51
ATOM	10283	NE2	GLN	B	553	80.960	70.334	79.448	1.00	24.19
ATOM	10284	N	LYS	B	554	78.976	67.103	75.064	1.00	24.65
ATOM	10285	CA	LYS	B	554	78.866	65.660	74.903	1.00	25.85
ATOM	10286	C	LYS	B	554	79.982	64.914	75.646	1.00	25.86
ATOM	10287	O	LYS	B	554	80.008	63.692	75.644	1.00	24.49
ATOM	10288	CB	LYS	B	554	78.995	65.306	73.420	1.00	26.26
ATOM	10289	CG	LYS	B	554	77.701	65.173	72.671	1.00	29.51
ATOM	10290	CD	LYS	B	554	77.061	63.802	72.931	1.00	32.34
ATOM	10291	CE	LYS	B	554	76.806	63.009	71.600	1.00	31.09
ATOM	10292	NZ	LYS	B	554	75.734	61.984	71.855	1.00	29.67
ATOM	10293	N	ALA	B	555	80.935	65.626	76.250	1.00	25.91
ATOM	10294	CA	ALA	B	555	81.943	64.935	77.043	1.00	26.38
ATOM	10295	C	ALA	B	555	81.626	65.285	78.461	1.00	25.75
ATOM	10296	O	ALA	B	555	81.709	66.428	78.843	1.00	26.47
ATOM	10297	CB	ALA	B	555	83.432	65.350	76.647	1.00	26.01
ATOM	10298	N	ASP	B	556	81.192	64.321	79.245	1.00	25.63
ATOM	10299	CA	ASP	B	556	80.840	64.644	80.594	1.00	25.67
ATOM	10300	C	ASP	B	556	81.001	63.486	81.553	1.00	25.52
ATOM	10301	O	ASP	B	556	81.546	62.454	81.198	1.00	24.68
ATOM	10302	CB	ASP	B	556	79.452	65.282	80.678	1.00	25.54
ATOM	10303	CG	ASP	B	556	78.306	64.376	80.212	1.00	26.43
ATOM	10304	OD1	ASP	B	556	78.346	63.149	80.346	1.00	25.95
ATOM	10305	OD2	ASP	B	556	77.258	64.873	79.724	1.00	32.39
ATOM	10306	N	THR	B	557	80.553	63.677	82.780	1.00	25.33
ATOM	10307	CA	THR	B	557	80.737	62.642	83.791	1.00	25.75
ATOM	10308	C	THR	B	557	79.481	61.895	84.114	1.00	25.51
ATOM	10309	O	THR	B	557	79.426	61.174	85.121	1.00	25.86
ATOM	10310	CB	THR	B	557	81.342	63.228	85.076	1.00	25.89
ATOM	10311	OG1	THR	B	557	80.558	64.341	85.553	1.00	26.22
ATOM	10312	CG2	THR	B	557	82.713	63.817	84.788	1.00	25.47
ATOM	10313	N	VAL	B	558	78.488	61.971	83.241	1.00	25.81
ATOM	10314	CA	VAL	B	558	77.274	61.221	83.502	1.00	26.28
ATOM	10315	C	VAL	B	558	77.351	59.740	83.115	1.00	26.36
ATOM	10316	O	VAL	B	558	78.028	59.339	82.181	1.00	25.31
ATOM	10317	CB	VAL	B	558	75.968	61.994	83.088	1.00	26.68
ATOM	10318	CG1	VAL	B	558	76.224	63.016	82.165	1.00	29.23
ATOM	10319	CG2	VAL	B	558	74.827	61.107	82.617	1.00	27.76
ATOM	10320	N	PHE	B	559	76.723	58.928	83.955	1.00	26.78
ATOM	10321	CA	PHE	B	559	76.582	57.528	83.705	1.00	27.96
ATOM	10322	C	PHE	B	559	75.394	57.309	82.782	1.00	28.30
ATOM	10323	O	PHE	B	559	74.333	57.847	83.032	1.00	27.33
ATOM	10324	CB	PHE	B	559	76.247	56.831	84.973	1.00	27.82
ATOM	10325	CG	PHE	B	559	76.111	55.368	84.822	1.00	29.69
ATOM	10326	CD1	PHE	B	559	77.235	54.556	84.834	1.00	34.43
ATOM	10327	CD2	PHE	B	559	74.868	54.785	84.700	1.00	29.96
ATOM	10328	CE1	PHE	B	559	77.101	53.163	84.721	1.00	36.18
ATOM	10329	CE2	PHE	B	559	74.739	53.426	84.567	1.00	31.21
ATOM	10330	CZ	PHE	B	559	75.848	52.609	84.584	1.00	32.62
ATOM	10331	N	ARG	B	560	75.570	56.505	81.744	1.00	29.23
ATOM	10332	CA	ARG	B	560	74.450	56.203	80.830	1.00	30.37
ATOM	10333	C	ARG	B	560	74.486	54.755	80.377	1.00	30.72
ATOM	10334	O	ARG	B	560	75.569	54.167	80.276	1.00	31.32
ATOM	10335	CB	ARG	B	560	74.526	57.065	79.582	1.00	30.18
ATOM	10336	CG	ARG	B	560	74.389	58.556	79.805	1.00	31.05
ATOM	10337	CD	ARG	B	560	74.486	59.389	78.504	1.00	33.99
ATOM	10338	NE	ARG	B	560	74.310	60.812	78.810	1.00	34.92
ATOM	10339	CZ	ARG	B	560	75.281	61.655	79.082	1.00	32.60
ATOM	10340	NH1	ARG	B	560	76.539	61.256	79.039	1.00	33.75
ATOM	10341	NH2	ARG	B	560	74.989	62.912	79.404	1.00	31.64
ATOM	10342	N	LEU	B	561	73.300	54.189	80.127	1.00	30.35
ATOM	10343	CA	LEU	B	561	73.153	52.884	79.516	1.00	29.48
ATOM	10344	C	LEU	B	561	72.453	53.147	78.209	1.00	28.29
ATOM	10345	O	LEU	B	561	71.287	53.421	78.178	1.00	27.23
ATOM	10346	CB	LEU	B	561	72.367	51.939	80.391	1.00	30.20

ATOM	10347	CG	LEU	B	561	73.127	51.661	81.716	1.00	32.81
ATOM	10348	CD1	LEU	B	561	72.160	51.200	82.755	1.00	34.14
ATOM	10349	CD2	LEU	B	561	74.223	50.640	81.489	1.00	32.06
ATOM	10350	N	ASN	B	562	73.195	53.060	77.119	1.00	27.42
ATOM	10351	CA	ASN	B	562	72.622	53.400	75.835	1.00	27.13
ATOM	10352	C	ASN	B	562	73.192	52.504	74.724	1.00	26.83
ATOM	10353	O	ASN	B	562	73.792	51.486	75.016	1.00	25.75
ATOM	10354	CB	ASN	B	562	72.836	54.891	75.558	1.00	26.53
ATOM	10355	CG	ASN	B	562	74.324	55.312	75.579	1.00	26.20
ATOM	10356	OD1	ASN	B	562	74.606	56.482	75.619	1.00	27.64
ATOM	10357	ND2	ASN	B	562	75.240	54.376	75.534	1.00	24.14
ATOM	10358	N	TRP	B	563	72.990	52.907	73.481	1.00	26.73
ATOM	10359	CA	TRP	B	563	73.399	52.136	72.317	1.00	27.54
ATOM	10360	C	TRP	B	563	74.895	51.986	72.371	1.00	27.72
ATOM	10361	O	TRP	B	563	75.411	50.923	72.167	1.00	27.64
ATOM	10362	CB	TRP	B	563	72.950	52.860	71.028	1.00	27.25
ATOM	10363	CG	TRP	B	563	73.216	52.132	69.715	1.00	27.56
ATOM	10364	CD1	TRP	B	563	72.896	50.855	69.432	1.00	27.76
ATOM	10365	CD2	TRP	B	563	73.789	52.670	68.514	1.00	26.74
ATOM	10366	NE1	TRP	B	563	73.226	50.548	68.142	1.00	27.33
ATOM	10367	CE2	TRP	B	563	73.773	51.646	67.548	1.00	27.18
ATOM	10368	CE3	TRP	B	563	74.269	53.925	68.140	1.00	27.86
ATOM	10369	CZ2	TRP	B	563	74.269	51.811	66.264	1.00	27.69
ATOM	10370	CZ3	TRP	B	563	74.787	54.087	66.874	1.00	25.86
ATOM	10371	CH2	TRP	B	563	74.769	53.042	65.941	1.00	27.84
ATOM	10372	N	ALA	B	564	75.586	53.081	72.667	1.00	29.15
ATOM	10373	CA	ALA	B	564	77.041	53.060	72.754	1.00	29.28
ATOM	10374	C	ALA	B	564	77.493	52.026	73.771	1.00	28.68
ATOM	10375	O	ALA	B	564	78.456	51.342	73.540	1.00	29.79
ATOM	10376	CB	ALA	B	564	77.594	54.448	73.089	1.00	28.92
ATOM	10377	N	THR	B	565	76.753	51.852	74.846	1.00	28.77
ATOM	10378	CA	THR	B	565	77.126	50.862	75.825	1.00	28.57
ATOM	10379	C	THR	B	565	77.145	49.506	75.150	1.00	28.84
ATOM	10380	O	THR	B	565	77.973	48.662	75.487	1.00	28.94
ATOM	10381	CB	THR	B	565	76.116	50.787	76.990	1.00	28.72
ATOM	10382	OG1	THR	B	565	75.860	52.081	77.558	1.00	27.98
ATOM	10383	CG2	THR	B	565	76.650	49.863	78.157	1.00	28.57
ATOM	10384	N	TYR	B	566	76.151	49.247	74.309	1.00	28.41
ATOM	10385	CA	TYR	B	566	76.064	47.974	73.639	1.00	28.41
ATOM	10386	C	TYR	B	566	77.154	47.850	72.595	1.00	28.23
ATOM	10387	O	TYR	B	566	77.761	46.806	72.467	1.00	29.10
ATOM	10388	CB	TYR	B	566	74.697	47.782	72.987	1.00	29.06
ATOM	10389	CG	TYR	B	566	74.773	47.080	71.676	1.00	30.04
ATOM	10390	CD1	TYR	B	566	75.035	45.721	71.619	1.00	32.31
ATOM	10391	CD2	TYR	B	566	74.620	47.779	70.481	1.00	32.97
ATOM	10392	CE1	TYR	B	566	75.113	45.058	70.415	1.00	33.88
ATOM	10393	CE2	TYR	B	566	74.684	47.110	69.249	1.00	35.94
ATOM	10394	CZ	TYR	B	566	74.946	45.753	69.229	1.00	34.02
ATOM	10395	OH	TYR	B	566	75.052	45.081	68.042	1.00	33.67
ATOM	10396	N	LEU	B	567	77.455	48.913	71.878	1.00	27.02
ATOM	10397	CA	LEU	B	567	78.478	48.806	70.859	1.00	26.41
ATOM	10398	C	LEU	B	567	79.879	48.455	71.416	1.00	27.00
ATOM	10399	O	LEU	B	567	80.671	47.724	70.785	1.00	24.89
ATOM	10400	CB	LEU	B	567	78.526	50.105	70.052	1.00	25.83
ATOM	10401	CG	LEU	B	567	77.258	50.402	69.240	1.00	25.67
ATOM	10402	CD1	LEU	B	567	77.333	51.828	68.696	1.00	25.99
ATOM	10403	CD2	LEU	B	567	77.090	49.382	68.094	1.00	24.78
ATOM	10404	N	ALA	B	568	80.202	49.026	72.571	1.00	27.42
ATOM	10405	CA	ALA	B	568	81.472	48.748	73.227	1.00	27.76
ATOM	10406	C	ALA	B	568	81.442	47.394	73.959	1.00	28.48
ATOM	10407	O	ALA	B	568	82.362	46.593	73.864	1.00	29.45
ATOM	10408	CB	ALA	B	568	81.778	49.865	74.201	1.00	28.47
ATOM	10409	N	SER	B	569	80.377	47.113	74.684	1.00	28.55
ATOM	10410	CA	SER	B	569	80.317	45.863	75.419	1.00	28.79
ATOM	10411	C	SER	B	569	80.205	44.601	74.539	1.00	30.00
ATOM	10412	O	SER	B	569	80.818	43.591	74.827	1.00	28.42
ATOM	10413	CB	SER	B	569	79.176	45.921	76.365	1.00	28.03
ATOM	10414	OG	SER	B	569	78.903	44.674	76.945	1.00	30.41
ATOM	10415	N	THR	B	570	79.421	44.651	73.462	1.00	30.76
ATOM	10416	CA	THR	B	570	79.207	43.445	72.708	1.00	31.35

ATOM	10417	C	THR	B	570	80.023	43.441	71.426	1.00	32.03
ATOM	10418	O	THR	B	570	80.632	42.455	71.107	1.00	32.46
ATOM	10419	CB	THR	B	570	77.733	43.281	72.450	1.00	32.16
ATOM	10420	OG1	THR	B	570	77.042	43.148	73.698	1.00	31.14
ATOM	10421	CG2	THR	B	570	77.408	41.967	71.676	1.00	32.40
ATOM	10422	N	GLU	B	571	80.065	44.565	70.725	1.00	32.39
ATOM	10423	CA	GLU	B	571	80.789	44.674	69.474	1.00	32.25
ATOM	10424	C	GLU	B	571	82.252	45.091	69.617	1.00	32.22
ATOM	10425	O	GLU	B	571	82.988	45.068	68.655	1.00	33.65
ATOM	10426	CB	GLU	B	571	80.072	45.657	68.587	1.00	32.41
ATOM	10427	CG	GLU	B	571	78.621	45.281	68.383	1.00	34.67
ATOM	10428	CD	GLU	B	571	78.410	43.831	67.946	1.00	36.63
ATOM	10429	OE1	GLU	B	571	79.270	43.253	67.270	1.00	39.21
ATOM	10430	OE2	GLU	B	571	77.352	43.268	68.263	1.00	39.45
ATOM	10431	N	ASN	B	572	82.691	45.465	70.806	1.00	31.26
ATOM	10432	CA	ASN	B	572	84.079	45.874	70.969	1.00	31.13
ATOM	10433	C	ASN	B	572	84.403	47.096	70.105	1.00	29.57
ATOM	10434	O	ASN	B	572	85.478	47.208	69.542	1.00	29.31
ATOM	10435	CB	ASN	B	572	85.074	44.688	70.746	1.00	31.11
ATOM	10436	CG	ASN	B	572	84.926	43.593	71.821	1.00	32.45
ATOM	10437	OD1	ASN	B	572	85.101	43.855	72.988	1.00	36.78
ATOM	10438	ND2	ASN	B	572	84.548	42.384	71.420	1.00	33.77
ATOM	10439	N	ILE	B	573	83.475	48.029	70.061	1.00	28.95
ATOM	10440	CA	ILE	B	573	83.682	49.287	69.383	1.00	29.13
ATOM	10441	C	ILE	B	573	83.934	50.419	70.382	1.00	28.98
ATOM	10442	O	ILE	B	573	83.268	50.526	71.407	1.00	28.09
ATOM	10443	CB	ILE	B	573	82.455	49.633	68.576	1.00	29.67
ATOM	10444	CG1	ILE	B	573	82.180	48.531	67.555	1.00	30.91
ATOM	10445	CG2	ILE	B	573	82.679	50.955	67.858	1.00	30.51
ATOM	10446	CD1	ILE	B	573	80.871	48.702	66.885	1.00	31.18
ATOM	10447	N	ILE	B	574	84.877	51.286	70.056	1.00	28.35
ATOM	10448	CA	ILE	B	574	85.116	52.446	70.856	1.00	28.11
ATOM	10449	C	ILE	B	574	84.162	53.511	70.370	1.00	27.24
ATOM	10450	O	ILE	B	574	84.158	53.815	69.187	1.00	27.92
ATOM	10451	CB	ILE	B	574	86.569	52.940	70.662	1.00	28.66
ATOM	10452	CG1	ILE	B	574	87.547	52.084	71.454	1.00	29.17
ATOM	10453	CG2	ILE	B	574	86.740	54.365	71.206	1.00	30.07
ATOM	10454	CD1	ILE	B	574	88.994	52.424	71.168	1.00	29.40
ATOM	10455	N	VAL	B	575	83.404	54.118	71.276	1.00	26.67
ATOM	10456	CA	VAL	B	575	82.464	55.191	70.921	1.00	26.59
ATOM	10457	C	VAL	B	575	82.890	56.485	71.557	1.00	25.86
ATOM	10458	O	VAL	B	575	82.791	56.645	72.765	1.00	26.51
ATOM	10459	CB	VAL	B	575	81.030	54.912	71.378	1.00	26.48
ATOM	10460	CG1	VAL	B	575	80.097	56.070	70.967	1.00	27.49
ATOM	10461	CG2	VAL	B	575	80.511	53.651	70.745	1.00	26.97
ATOM	10462	N	ALA	B	576	83.301	57.424	70.721	1.00	25.19
ATOM	10463	CA	ALA	B	576	83.895	58.659	71.149	1.00	24.50
ATOM	10464	C	ALA	B	576	83.026	59.880	70.885	1.00	24.77
ATOM	10465	O	ALA	B	576	82.308	59.925	69.906	1.00	24.84
ATOM	10466	CB	ALA	B	576	85.165	58.819	70.433	1.00	24.61
ATOM	10467	N	SER	B	577	83.087	60.856	71.789	1.00	24.60
ATOM	10468	CA	SER	B	577	82.431	62.133	71.603	1.00	24.51
ATOM	10469	C	SER	B	577	83.430	63.227	71.969	1.00	25.26
ATOM	10470	O	SER	B	577	84.197	63.074	72.918	1.00	25.83
ATOM	10471	CB	SER	B	577	81.194	62.194	72.457	1.00	24.10
ATOM	10472	OG	SER	B	577	80.266	61.204	72.035	1.00	26.22
ATOM	10473	N	PHE	B	578	83.395	64.326	71.232	1.00	25.14
ATOM	10474	CA	PHE	B	578	84.330	65.408	71.390	1.00	25.35
ATOM	10475	C	PHE	B	578	83.595	66.734	71.388	1.00	26.04
ATOM	10476	O	PHE	B	578	82.664	66.941	70.584	1.00	25.63
ATOM	10477	CB	PHE	B	578	85.270	65.367	70.176	1.00	26.44
ATOM	10478	CG	PHE	B	578	86.254	66.500	70.104	1.00	24.81
ATOM	10479	CD1	PHE	B	578	87.358	66.525	70.906	1.00	27.02
ATOM	10480	CD2	PHE	B	578	86.091	67.491	69.201	1.00	23.55
ATOM	10481	CE1	PHE	B	578	88.302	67.543	70.779	1.00	27.15
ATOM	10482	CE2	PHE	B	578	86.994	68.524	69.112	1.00	28.20
ATOM	10483	CZ	PHE	B	578	88.096	68.550	69.925	1.00	24.21
ATOM	10484	N	ASP	B	579	84.025	67.638	72.254	1.00	24.66
ATOM	10485	CA	ASP	B	579	83.457	68.981	72.325	1.00	25.26
ATOM	10486	C	ASP	B	579	84.456	70.023	71.763	1.00	25.12

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ATOM  10487  O   ASP B 579      85.415  70.421  72.460  1.00 23.61
ATOM  10488  CB  ASP B 579      83.183  69.348  73.791  1.00 25.33
ATOM  10489  CG  ASP B 579      82.008  68.570  74.408  1.00 28.29
ATOM  10490  OD1 ASP B 579      81.068  68.144  73.658  1.00 25.80
ATOM  10491  OD2 ASP B 579      81.937  68.377  75.657  1.00 30.85
ATOM  10492  N   GLY B 580      84.201  70.487  70.547  1.00 24.76
ATOM  10493  CA  GLY B 580      85.038  71.465  69.894  1.00 25.40
ATOM  10494  C   GLY B 580      84.510  72.874  69.988  1.00 25.60
ATOM  10495  O   GLY B 580      83.721  73.216  70.883  1.00 25.56
ATOM  10496  N   ARG B 581      84.946  73.698  69.040  1.00 25.93
ATOM  10497  CA  ARG B 581      84.535  75.068  69.006  1.00 26.46
ATOM  10498  C   ARG B 581      83.043  75.079  68.851  1.00 27.29
ATOM  10499  O   ARG B 581      82.451  74.176  68.217  1.00 26.72
ATOM  10500  CB  ARG B 581      85.247  75.859  67.929  1.00 27.05
ATOM  10501  CG  ARG B 581      86.670  76.261  68.345  1.00 28.13
ATOM  10502  CD  ARG B 581      87.510  76.860  67.244  1.00 29.07
ATOM  10503  NE  ARG B 581      87.882  75.882  66.232  1.00 30.12
ATOM  10504  CZ  ARG B 581      88.502  76.185  65.083  1.00 32.47
ATOM  10505  NH1 ARG B 581      88.795  77.444  64.794  1.00 32.23
ATOM  10506  NH2 ARG B 581      88.793  75.237  64.205  1.00 30.51
ATOM  10507  N   GLY B 582      82.436  76.075  69.504  1.00 28.33
ATOM  10508  CA  GLY B 582      80.975  76.200  69.574  1.00 28.60
ATOM  10509  C   GLY B 582      80.391  75.512  70.805  1.00 28.42
ATOM  10510  O   GLY B 582      79.274  75.796  71.217  1.00 27.45
ATOM  10511  N   SER B 583      81.152  74.603  71.414  1.00 28.74
ATOM  10512  CA  SER B 583      80.652  73.903  72.605  1.00 28.30
ATOM  10513  C   SER B 583      80.541  74.783  73.843  1.00 27.52
ATOM  10514  O   SER B 583      81.150  75.837  73.941  1.00 27.35
ATOM  10515  CB  SER B 583      81.458  72.638  72.882  1.00 29.15
ATOM  10516  OG  SER B 583      82.784  72.889  73.323  1.00 30.66
ATOM  10517  N   GLY B 584      79.722  74.363  74.793  1.00 26.43
ATOM  10518  CA  GLY B 584      79.439  75.220  75.907  1.00 26.10
ATOM  10519  C   GLY B 584      80.212  74.976  77.182  1.00 25.98
ATOM  10520  O   GLY B 584      80.966  74.014  77.342  1.00 24.58
ATOM  10521  N   TYR B 585      79.978  75.901  78.092  1.00 26.84
ATOM  10522  CA  TYR B 585      80.396  75.781  79.483  1.00 27.30
ATOM  10523  C   TYR B 585      81.883  76.015  79.734  1.00 27.23
ATOM  10524  O   TYR B 585      82.332  75.746  80.831  1.00 27.02
ATOM  10525  CB  TYR B 585      80.008  74.404  80.017  1.00 27.04
ATOM  10526  CG  TYR B 585      78.559  74.131  79.899  1.00 28.27
ATOM  10527  CD1 TYR B 585      77.640  74.849  80.635  1.00 30.07
ATOM  10528  CD2 TYR B 585      78.092  73.160  79.025  1.00 31.05
ATOM  10529  CE1 TYR B 585      76.279  74.619  80.503  1.00 30.51
ATOM  10530  CE2 TYR B 585      76.751  72.912  78.891  1.00 31.04
ATOM  10531  CZ  TYR B 585      75.850  73.637  79.628  1.00 31.77
ATOM  10532  OH  TYR B 585      74.518  73.367  79.484  1.00 32.27
ATOM  10533  N   GLN B 586      82.596  76.520  78.733  1.00 27.28
ATOM  10534  CA  GLN B 586      84.018  76.789  78.792  1.00 27.85
ATOM  10535  C   GLN B 586      84.362  78.225  78.330  1.00 27.62
ATOM  10536  O   GLN B 586      85.498  78.510  77.913  1.00 28.03
ATOM  10537  CB  GLN B 586      84.745  75.804  77.896  1.00 28.25
ATOM  10538  CG  GLN B 586      84.307  74.361  78.064  1.00 29.26
ATOM  10539  CD  GLN B 586      84.428  73.587  76.784  1.00 29.61
ATOM  10540  OE1 GLN B 586      83.382  73.308  76.103  1.00 31.20
ATOM  10541  NE2 GLN B 586      85.680  73.306  76.374  1.00 23.71
ATOM  10542  N   GLY B 587      83.372  79.107  78.359  1.00 27.18
ATOM  10543  CA  GLY B 587      83.549  80.498  78.004  1.00 27.53
ATOM  10544  C   GLY B 587      83.131  80.788  76.585  1.00 28.64
ATOM  10545  O   GLY B 587      82.967  79.858  75.753  1.00 28.95
ATOM  10546  N   ASP B 588      82.951  82.075  76.315  1.00 29.40
ATOM  10547  CA  ASP B 588      82.531  82.573  75.033  1.00 31.43
ATOM  10548  C   ASP B 588      83.551  82.483  73.880  1.00 32.96
ATOM  10549  O   ASP B 588      83.162  82.556  72.707  1.00 33.17
ATOM  10550  CB  ASP B 588      82.111  84.024  75.157  1.00 31.39
ATOM  10551  CG  ASP B 588      80.825  84.191  75.914  1.00 34.45
ATOM  10552  OD1 ASP B 588      80.179  83.155  76.201  1.00 37.51
ATOM  10553  OD2 ASP B 588      80.378  85.323  76.260  1.00 34.75
ATOM  10554  N   LYS B 589      84.837  82.397  74.185  1.00 33.13
ATOM  10555  CA  LYS B 589      85.824  82.333  73.125  1.00 33.91
ATOM  10556  C   LYS B 589      85.618  81.028  72.373  1.00 32.65
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ATOM	10557	O	LYS	B	589	85.767	80.960	71.179	1.00	33.07
ATOM	10558	CB	LYS	B	589	87.264	82.380	73.678	1.00	34.26
ATOM	10559	CG	LYS	B	589	88.320	82.387	72.572	1.00	37.91
ATOM	10560	CD	LYS	B	589	89.765	82.367	73.123	1.00	42.91
ATOM	10561	CE	LYS	B	589	90.868	82.113	72.032	1.00	43.62
ATOM	10562	NZ	LYS	B	589	92.247	81.993	72.731	1.00	43.08
ATOM	10563	N	ILE	B	590	85.295	79.980	73.105	1.00	31.38
ATOM	10564	CA	ILE	B	590	85.024	78.707	72.500	1.00	30.12
ATOM	10565	C	ILE	B	590	83.590	78.656	72.024	1.00	30.27
ATOM	10566	O	ILE	B	590	83.325	78.310	70.873	1.00	30.58
ATOM	10567	CB	ILE	B	590	85.322	77.594	73.491	1.00	30.61
ATOM	10568	CG1	ILE	B	590	86.870	77.484	73.670	1.00	28.29
ATOM	10569	CG2	ILE	B	590	84.620	76.270	73.078	1.00	26.65
ATOM	10570	CD1	ILE	B	590	87.277	76.467	74.700	1.00	29.97
ATOM	10571	N	MET	B	591	82.651	79.022	72.871	1.00	30.17
ATOM	10572	CA	MET	B	591	81.267	78.887	72.482	1.00	29.62
ATOM	10573	C	MET	B	591	80.884	79.781	71.303	1.00	29.25
ATOM	10574	O	MET	B	591	80.259	79.294	70.363	1.00	29.57
ATOM	10575	CB	MET	B	591	80.347	79.154	73.658	1.00	30.52
ATOM	10576	CG	MET	B	591	78.871	79.080	73.278	1.00	30.68
ATOM	10577	SD	MET	B	591	77.811	78.961	74.661	1.00	31.62
ATOM	10578	CE	MET	B	591	77.284	80.640	74.802	1.00	28.20
ATOM	10579	N	HIS	B	592	81.234	81.067	71.318	1.00	27.94
ATOM	10580	CA	HIS	B	592	80.885	81.943	70.186	1.00	27.62
ATOM	10581	C	HIS	B	592	81.793	81.813	68.949	1.00	27.34
ATOM	10582	O	HIS	B	592	81.648	82.537	67.996	1.00	27.16
ATOM	10583	CB	HIS	B	592	80.884	83.419	70.609	1.00	28.46
ATOM	10584	CG	HIS	B	592	79.782	83.789	71.569	1.00	28.43
ATOM	10585	ND1	HIS	B	592	79.903	84.823	72.470	1.00	25.69
ATOM	10586	CD2	HIS	B	592	78.552	83.249	71.785	1.00	30.21
ATOM	10587	CE1	HIS	B	592	78.813	84.905	73.208	1.00	25.59
ATOM	10588	NE2	HIS	B	592	77.958	83.981	72.795	1.00	29.95
ATOM	10589	N	ALA	B	593	82.719	80.879	68.909	1.00	27.75
ATOM	10590	CA	ALA	B	593	83.619	80.888	67.772	1.00	28.43
ATOM	10591	C	ALA	B	593	82.826	80.686	66.509	1.00	29.66
ATOM	10592	O	ALA	B	593	83.285	80.971	65.415	1.00	29.97
ATOM	10593	CB	ALA	B	593	84.587	79.805	67.910	1.00	27.97
ATOM	10594	N	ILE	B	594	81.618	80.172	66.664	1.00	29.79
ATOM	10595	CA	ILE	B	594	80.890	79.719	65.529	1.00	30.72
ATOM	10596	C	ILE	B	594	79.752	80.625	65.167	1.00	31.16
ATOM	10597	O	ILE	B	594	78.905	80.306	64.323	1.00	31.43
ATOM	10598	CB	ILE	B	594	80.520	78.290	65.877	1.00	31.20
ATOM	10599	CG1	ILE	B	594	80.946	77.391	64.760	1.00	31.99
ATOM	10600	CG2	ILE	B	594	79.091	78.126	66.365	1.00	31.20
ATOM	10601	CD1	ILE	B	594	81.811	76.349	65.216	1.00	33.13
ATOM	10602	N	ASN	B	595	79.755	81.785	65.808	1.00	32.03
ATOM	10603	CA	ASN	B	595	78.712	82.778	65.639	1.00	31.64
ATOM	10604	C	ASN	B	595	78.553	83.096	64.183	1.00	32.87
ATOM	10605	O	ASN	B	595	79.546	83.274	63.459	1.00	33.90
ATOM	10606	CB	ASN	B	595	79.097	84.025	66.391	1.00	31.87
ATOM	10607	CG	ASN	B	595	78.022	85.083	66.362	1.00	31.16
ATOM	10608	OD1	ASN	B	595	76.837	84.789	66.322	1.00	32.97
ATOM	10609	ND2	ASN	B	595	78.436	86.321	66.395	1.00	30.64
ATOM	10610	N	ARG	B	596	77.313	83.175	63.731	1.00	32.50
ATOM	10611	CA	ARG	B	596	77.044	83.449	62.327	1.00	33.09
ATOM	10612	C	ARG	B	596	77.798	82.494	61.422	1.00	32.46
ATOM	10613	O	ARG	B	596	77.969	82.765	60.243	1.00	30.88
ATOM	10614	CB	ARG	B	596	77.383	84.910	61.971	1.00	33.50
ATOM	10615	CG	ARG	B	596	76.572	85.990	62.745	1.00	36.26
ATOM	10616	CD	ARG	B	596	76.985	87.482	62.409	1.00	40.45
ATOM	10617	NE	ARG	B	596	76.324	88.059	61.201	1.00	44.20
ATOM	10618	CZ	ARG	B	596	76.860	88.114	59.978	1.00	46.01
ATOM	10619	NH1	ARG	B	596	78.084	87.620	59.739	1.00	47.70
ATOM	10620	NH2	ARG	B	596	76.170	88.672	58.989	1.00	43.53
ATOM	10621	N	ARG	B	597	78.256	81.368	61.943	1.00	32.93
ATOM	10622	CA	ARG	B	597	79.043	80.476	61.081	1.00	34.19
ATOM	10623	C	ARG	B	597	78.829	78.990	61.332	1.00	32.69
ATOM	10624	O	ARG	B	597	79.796	78.272	61.458	1.00	32.70
ATOM	10625	CB	ARG	B	597	80.549	80.815	61.232	1.00	36.10
ATOM	10626	CG	ARG	B	597	80.956	82.200	60.699	1.00	41.65

ATOM	10627	CD	ARG	B	597	82.277	82.747	61.266	1.00	51.98
ATOM	10628	NE	ARG	B	597	82.324	82.880	62.755	1.00	58.21
ATOM	10629	CZ	ARG	B	597	82.566	84.023	63.421	1.00	61.33
ATOM	10630	NH1	ARG	B	597	82.767	85.173	62.766	1.00	63.35
ATOM	10631	NH2	ARG	B	597	82.613	84.014	64.750	1.00	62.56
ATOM	10632	N	LEU	B	598	77.575	78.525	61.381	1.00	31.58
ATOM	10633	CA	LEU	B	598	77.279	77.124	61.645	1.00	31.01
ATOM	10634	C	LEU	B	598	77.799	76.267	60.555	1.00	30.47
ATOM	10635	O	LEU	B	598	77.947	76.718	59.469	1.00	31.95
ATOM	10636	CB	LEU	B	598	75.768	76.869	61.795	1.00	31.31
ATOM	10637	CG	LEU	B	598	75.164	77.669	62.926	1.00	30.57
ATOM	10638	CD1	LEU	B	598	73.698	77.411	62.997	1.00	32.93
ATOM	10639	CD2	LEU	B	598	75.858	77.326	64.254	1.00	28.42
ATOM	10640	N	GLY	B	599	78.101	75.015	60.848	1.00	30.02
ATOM	10641	CA	GLY	B	599	78.646	74.140	59.832	1.00	29.74
ATOM	10642	C	GLY	B	599	80.079	74.472	59.434	1.00	29.84
ATOM	10643	O	GLY	B	599	80.514	74.163	58.348	1.00	29.03
ATOM	10644	N	THR	B	600	80.844	75.032	60.348	1.00	29.63
ATOM	10645	CA	THR	B	600	82.196	75.444	60.022	1.00	30.03
ATOM	10646	C	THR	B	600	83.197	74.870	61.038	1.00	29.73
ATOM	10647	O	THR	B	600	83.554	73.691	60.949	1.00	29.64
ATOM	10648	CB	THR	B	600	82.100	76.984	59.909	1.00	31.08
ATOM	10649	OG1	THR	B	600	82.558	77.447	58.634	1.00	34.89
ATOM	10650	CG2	THR	B	600	82.794	77.710	60.930	1.00	28.28
ATOM	10651	N	PHE	B	601	83.606	75.627	62.044	1.00	29.95
ATOM	10652	CA	PHE	B	601	84.644	75.146	62.961	1.00	30.35
ATOM	10653	C	PHE	B	601	84.194	73.919	63.736	1.00	29.59
ATOM	10654	O	PHE	B	601	84.991	73.038	63.982	1.00	28.80
ATOM	10655	CB	PHE	B	601	85.083	76.239	63.944	1.00	30.77
ATOM	10656	CG	PHE	B	601	85.644	77.480	63.290	1.00	34.23
ATOM	10657	CD1	PHE	B	601	86.546	77.401	62.245	1.00	38.59
ATOM	10658	CD2	PHE	B	601	85.292	78.735	63.746	1.00	38.13
ATOM	10659	CE1	PHE	B	601	87.070	78.560	61.663	1.00	38.92
ATOM	10660	CE2	PHE	B	601	85.821	79.893	63.162	1.00	38.48
ATOM	10661	CZ	PHE	B	601	86.700	79.800	62.132	1.00	38.17
ATOM	10662	N	GLU	B	602	82.906	73.835	64.086	1.00	29.35
ATOM	10663	CA	GLU	B	602	82.423	72.673	64.819	1.00	28.58
ATOM	10664	C	GLU	B	602	82.525	71.384	63.979	1.00	28.39
ATOM	10665	O	GLU	B	602	82.773	70.290	64.510	1.00	28.66
ATOM	10666	CB	GLU	B	602	81.000	72.916	65.356	1.00	28.78
ATOM	10667	CG	GLU	B	602	79.859	72.581	64.437	1.00	27.88
ATOM	10668	CD	GLU	B	602	79.514	73.699	63.503	1.00	28.39
ATOM	10669	OE1	GLU	B	602	80.433	74.414	63.025	1.00	28.79
ATOM	10670	OE2	GLU	B	602	78.311	73.818	63.212	1.00	29.14
ATOM	10671	N	VAL	B	603	82.423	71.528	62.663	1.00	28.03
ATOM	10672	CA	VAL	B	603	82.535	70.393	61.736	1.00	27.82
ATOM	10673	C	VAL	B	603	84.012	70.018	61.601	1.00	28.52
ATOM	10674	O	VAL	B	603	84.410	68.848	61.662	1.00	27.76
ATOM	10675	CB	VAL	B	603	81.969	70.803	60.340	1.00	27.10
ATOM	10676	CG1	VAL	B	603	82.140	69.735	59.338	1.00	27.69
ATOM	10677	CG2	VAL	B	603	80.530	71.170	60.453	1.00	28.49
ATOM	10678	N	GLU	B	604	84.818	71.036	61.361	1.00	29.64
ATOM	10679	CA	GLU	B	604	86.261	70.877	61.261	1.00	30.17
ATOM	10680	C	GLU	B	604	86.855	70.214	62.486	1.00	29.17
ATOM	10681	O	GLU	B	604	87.694	69.330	62.376	1.00	26.66
ATOM	10682	CB	GLU	B	604	86.895	72.253	61.125	1.00	31.80
ATOM	10683	CG	GLU	B	604	86.525	72.986	59.830	1.00	35.77
ATOM	10684	CD	GLU	B	604	87.043	74.421	59.795	1.00	42.21
ATOM	10685	OE1	GLU	B	604	88.206	74.647	60.303	1.00	42.15
ATOM	10686	OE2	GLU	B	604	86.277	75.314	59.270	1.00	43.50
ATOM	10687	N	ASP	B	605	86.378	70.625	63.661	1.00	28.35
ATOM	10688	CA	ASP	B	605	86.962	70.164	64.900	1.00	28.64
ATOM	10689	C	ASP	B	605	86.642	68.688	65.133	1.00	27.94
ATOM	10690	O	ASP	B	605	87.458	67.954	65.662	1.00	27.49
ATOM	10691	CB	ASP	B	605	86.496	71.020	66.084	1.00	29.20
ATOM	10692	CG	ASP	B	605	87.165	72.419	66.138	1.00	31.44
ATOM	10693	OD1	ASP	B	605	87.929	72.797	65.213	1.00	29.89
ATOM	10694	OD2	ASP	B	605	86.931	73.228	67.085	1.00	30.59
ATOM	10695	N	GLN	B	606	85.462	68.242	64.730	1.00	27.69
ATOM	10696	CA	GLN	B	606	85.127	66.838	64.861	1.00	26.79

ATOM	10697	C	GLN	B	606	86.104	66.041	63.985	1.00	27.77
ATOM	10698	O	GLN	B	606	86.541	64.963	64.357	1.00	27.24
ATOM	10699	CB	GLN	B	606	83.670	66.574	64.448	1.00	26.75
ATOM	10700	CG	GLN	B	606	82.590	67.157	65.402	1.00	25.51
ATOM	10701	CD	GLN	B	606	82.546	66.412	66.737	1.00	25.37
ATOM	10702	OE1	GLN	B	606	82.500	65.177	66.759	1.00	31.48
ATOM	10703	NE2	GLN	B	606	82.634	67.141	67.833	1.00	22.23
ATOM	10704	N	ILE	B	607	86.438	66.573	62.819	1.00	28.71
ATOM	10705	CA	ILE	B	607	87.398	65.911	61.918	1.00	30.05
ATOM	10706	C	ILE	B	607	88.787	65.823	62.484	1.00	30.76
ATOM	10707	O	ILE	B	607	89.416	64.772	62.428	1.00	31.62
ATOM	10708	CB	ILE	B	607	87.475	66.626	60.579	1.00	29.64
ATOM	10709	CG1	ILE	B	607	86.180	66.412	59.831	1.00	29.14
ATOM	10710	CG2	ILE	B	607	88.632	66.044	59.715	1.00	31.57
ATOM	10711	CD1	ILE	B	607	86.001	67.251	58.585	1.00	31.21
ATOM	10712	N	GLU	B	608	89.277	66.925	63.029	1.00	31.23
ATOM	10713	CA	GLU	B	608	90.602	66.916	63.642	1.00	31.09
ATOM	10714	C	GLU	B	608	90.653	65.920	64.840	1.00	30.08
ATOM	10715	O	GLU	B	608	91.575	65.100	64.973	1.00	29.15
ATOM	10716	CB	GLU	B	608	90.978	68.347	63.985	1.00	31.42
ATOM	10717	CG	GLU	B	608	92.234	68.546	64.831	1.00	36.11
ATOM	10718	CD	GLU	B	608	93.471	67.991	64.190	1.00	38.52
ATOM	10719	OE1	GLU	B	608	93.445	67.821	62.960	1.00	40.58
ATOM	10720	OE2	GLU	B	608	94.447	67.702	64.929	1.00	40.81
ATOM	10721	N	ALA	B	609	89.616	65.907	65.666	1.00	29.75
ATOM	10722	CA	ALA	B	609	89.602	65.008	66.815	1.00	27.89
ATOM	10723	C	ALA	B	609	89.757	63.593	66.372	1.00	28.03
ATOM	10724	O	ALA	B	609	90.522	62.823	66.983	1.00	27.07
ATOM	10725	CB	ALA	B	609	88.332	65.143	67.576	1.00	28.09
ATOM	10726	N	ALA	B	610	88.980	63.224	65.341	1.00	29.31
ATOM	10727	CA	ALA	B	610	89.038	61.882	64.796	1.00	30.46
ATOM	10728	C	ALA	B	610	90.447	61.590	64.239	1.00	31.96
ATOM	10729	O	ALA	B	610	90.983	60.499	64.393	1.00	30.76
ATOM	10730	CB	ALA	B	610	87.993	61.728	63.725	1.00	31.13
ATOM	10731	N	ARG	B	611	91.047	62.569	63.576	1.00	34.38
ATOM	10732	CA	ARG	B	611	92.448	62.417	63.173	1.00	36.62
ATOM	10733	C	ARG	B	611	93.359	62.083	64.363	1.00	37.55
ATOM	10734	O	ARG	B	611	94.146	61.132	64.319	1.00	37.49
ATOM	10735	CB	ARG	B	611	92.975	63.686	62.556	1.00	37.15
ATOM	10736	CG	ARG	B	611	92.409	64.030	61.232	1.00	39.17
ATOM	10737	CD	ARG	B	611	93.246	65.083	60.505	1.00	41.10
ATOM	10738	NE	ARG	B	611	92.638	65.476	59.242	1.00	43.54
ATOM	10739	CZ	ARG	B	611	92.682	64.741	58.142	1.00	47.60
ATOM	10740	NH1	ARG	B	611	93.313	63.552	58.139	1.00	46.75
ATOM	10741	NH2	ARG	B	611	92.104	65.195	57.030	1.00	49.60
ATOM	10742	N	GLN	B	612	93.282	62.871	65.418	1.00	38.42
ATOM	10743	CA	GLN	B	612	94.140	62.595	66.567	1.00	39.96
ATOM	10744	C	GLN	B	612	93.799	61.266	67.182	1.00	41.27
ATOM	10745	O	GLN	B	612	94.711	60.510	67.554	1.00	42.50
ATOM	10746	CB	GLN	B	612	94.067	63.688	67.613	1.00	40.19
ATOM	10747	CG	GLN	B	612	94.906	64.871	67.197	1.00	40.92
ATOM	10748	CD	GLN	B	612	95.099	65.864	68.276	1.00	40.60
ATOM	10749	OE1	GLN	B	612	95.153	65.511	69.446	1.00	40.23
ATOM	10750	NE2	GLN	B	612	95.204	67.127	67.893	1.00	41.14
ATOM	10751	N	PHE	B	613	92.515	60.923	67.245	1.00	41.37
ATOM	10752	CA	PHE	B	613	92.180	59.645	67.835	1.00	41.93
ATOM	10753	C	PHE	B	613	92.852	58.529	67.056	1.00	42.81
ATOM	10754	O	PHE	B	613	93.341	57.564	67.655	1.00	42.45
ATOM	10755	CB	PHE	B	613	90.664	59.428	67.915	1.00	42.06
ATOM	10756	CG	PHE	B	613	89.963	60.342	68.897	1.00	40.97
ATOM	10757	CD1	PHE	B	613	90.580	60.723	70.086	1.00	39.82
ATOM	10758	CD2	PHE	B	613	88.675	60.807	68.625	1.00	38.60
ATOM	10759	CE1	PHE	B	613	89.934	61.556	70.977	1.00	38.32
ATOM	10760	CE2	PHE	B	613	88.019	61.621	69.504	1.00	37.41
ATOM	10761	CZ	PHE	B	613	88.649	62.012	70.690	1.00	38.28
ATOM	10762	N	SER	B	614	92.864	58.671	65.732	1.00	44.37
ATOM	10763	CA	SER	B	614	93.507	57.716	64.813	1.00	46.26
ATOM	10764	C	SER	B	614	94.969	57.460	65.102	1.00	47.54
ATOM	10765	O	SER	B	614	95.479	56.382	64.779	1.00	47.97
ATOM	10766	CB	SER	B	614	93.457	58.219	63.379	1.00	46.05

ATOM	10767	OG	SER	B	614	92.122	58.265	62.954	1.00	47.57
ATOM	10768	N	LYS	B	615	95.644	58.456	65.672	1.00	48.47
ATOM	10769	CA	LYS	B	615	97.060	58.323	65.981	1.00	49.77
ATOM	10770	C	LYS	B	615	97.262	57.757	67.375	1.00	49.54
ATOM	10771	O	LYS	B	615	98.340	57.901	67.947	1.00	50.00
ATOM	10772	CB	LYS	B	615	97.764	59.679	65.921	1.00	49.86
ATOM	10773	CG	LYS	B	615	97.995	60.231	64.539	1.00	52.76
ATOM	10774	CD	LYS	B	615	99.008	61.414	64.620	1.00	55.47
ATOM	10775	CE	LYS	B	615	98.927	62.385	63.415	1.00	56.51
ATOM	10776	NZ	LYS	B	615	99.486	63.757	63.735	1.00	55.70
ATOM	10777	N	MET	B	616	96.221	57.200	67.973	1.00	49.06
ATOM	10778	CA	MET	B	616	96.404	56.596	69.284	1.00	48.60
ATOM	10779	C	MET	B	616	96.638	55.111	68.946	1.00	47.93
ATOM	10780	O	MET	B	616	95.936	54.482	68.142	1.00	48.34
ATOM	10781	CB	MET	B	616	95.213	56.851	70.238	1.00	49.16
ATOM	10782	CG	MET	B	616	95.060	58.332	70.751	1.00	49.13
ATOM	10783	SD	MET	B	616	93.571	58.737	71.827	1.00	49.24
ATOM	10784	CE	MET	B	616	93.720	60.480	71.881	1.00	43.96
ATOM	10785	N	GLY	B	617	97.670	54.546	69.522	1.00	46.79
ATOM	10786	CA	GLY	B	617	98.040	53.204	69.131	1.00	45.51
ATOM	10787	C	GLY	B	617	96.886	52.233	69.138	1.00	43.75
ATOM	10788	O	GLY	B	617	97.038	51.139	68.590	1.00	43.25
ATOM	10789	N	PHE	B	618	95.742	52.621	69.721	1.00	41.77
ATOM	10790	CA	PHE	B	618	94.635	51.677	69.889	1.00	40.09
ATOM	10791	C	PHE	B	618	93.398	51.831	68.974	1.00	39.67
ATOM	10792	O	PHE	B	618	92.412	51.092	69.122	1.00	38.13
ATOM	10793	CB	PHE	B	618	94.238	51.590	71.361	1.00	39.95
ATOM	10794	CG	PHE	B	618	93.787	52.894	71.975	1.00	40.73
ATOM	10795	CD1	PHE	B	618	92.480	53.300	71.882	1.00	38.86
ATOM	10796	CD2	PHE	B	618	94.678	53.689	72.692	1.00	42.73
ATOM	10797	CE1	PHE	B	618	92.052	54.469	72.451	1.00	39.59
ATOM	10798	CE2	PHE	B	618	94.261	54.861	73.272	1.00	41.95
ATOM	10799	CZ	PHE	B	618	92.936	55.267	73.161	1.00	42.27
ATOM	10800	N	VAL	B	619	93.429	52.750	68.019	1.00	38.25
ATOM	10801	CA	VAL	B	619	92.303	52.791	67.094	1.00	39.86
ATOM	10802	C	VAL	B	619	92.742	52.435	65.686	1.00	39.43
ATOM	10803	O	VAL	B	619	93.769	52.868	65.199	1.00	39.46
ATOM	10804	CB	VAL	B	619	91.497	54.087	67.092	1.00	39.76
ATOM	10805	CG1	VAL	B	619	91.676	54.839	68.343	1.00	41.05
ATOM	10806	CG2	VAL	B	619	91.840	54.915	65.930	1.00	41.29
ATOM	10807	N	ASP	B	620	91.975	51.603	65.021	1.00	38.47
ATOM	10808	CA	ASP	B	620	92.405	51.266	63.705	1.00	39.50
ATOM	10809	C	ASP	B	620	91.786	52.278	62.779	1.00	38.38
ATOM	10810	O	ASP	B	620	90.565	52.445	62.734	1.00	37.52
ATOM	10811	CB	ASP	B	620	92.112	49.807	63.361	1.00	40.45
ATOM	10812	CG	ASP	B	620	91.185	49.668	62.253	1.00	41.41
ATOM	10813	OD1	ASP	B	620	90.472	50.658	62.056	1.00	52.22
ATOM	10814	OD2	ASP	B	620	91.032	48.635	61.566	1.00	37.52
ATOM	10815	N	ASN	B	621	92.656	52.992	62.085	1.00	37.29
ATOM	10816	CA	ASN	B	621	92.254	54.027	61.171	1.00	37.29
ATOM	10817	C	ASN	B	621	91.521	53.559	59.922	1.00	36.59
ATOM	10818	O	ASN	B	621	91.154	54.386	59.121	1.00	36.60
ATOM	10819	CB	ASN	B	621	93.471	54.840	60.754	1.00	38.33
ATOM	10820	CG	ASN	B	621	94.532	53.987	60.099	1.00	40.06
ATOM	10821	OD1	ASN	B	621	95.711	54.332	60.099	1.00	45.02
ATOM	10822	ND2	ASN	B	621	94.128	52.832	59.596	1.00	41.57
ATOM	10823	N	LYS	B	622	91.317	52.258	59.735	1.00	36.48
ATOM	10824	CA	LYS	B	622	90.550	51.768	58.560	1.00	36.62
ATOM	10825	C	LYS	B	622	89.068	51.682	58.889	1.00	34.86
ATOM	10826	O	LYS	B	622	88.223	51.552	57.988	1.00	34.55
ATOM	10827	CB	LYS	B	622	90.989	50.353	58.136	1.00	37.22
ATOM	10828	CG	LYS	B	622	92.528	50.136	57.901	1.00	40.89
ATOM	10829	CD	LYS	B	622	92.799	48.711	57.342	1.00	45.06
ATOM	10830	CE	LYS	B	622	93.442	47.742	58.372	1.00	46.89
ATOM	10831	NZ	LYS	B	622	93.320	46.309	57.939	1.00	45.93
ATOM	10832	N	ARG	B	623	88.750	51.725	60.179	1.00	32.22
ATOM	10833	CA	ARG	B	623	87.368	51.618	60.588	1.00	31.40
ATOM	10834	C	ARG	B	623	86.945	52.695	61.579	1.00	30.66
ATOM	10835	O	ARG	B	623	86.631	52.413	62.755	1.00	30.63
ATOM	10836	CB	ARG	B	623	87.083	50.232	61.147	1.00	31.13

ATOM	10837	CG	ARG	B	623	87.357	49.109	60.184	1.00 31.70
ATOM	10838	CD	ARG	B	623	87.110	47.735	60.762	1.00 32.44
ATOM	10839	NE	ARG	B	623	88.102	47.366	61.741	1.00 34.08
ATOM	10840	CZ	ARG	B	623	87.936	46.458	62.663	1.00 35.71
ATOM	10841	NH1	ARG	B	623	86.796	45.822	62.770	1.00 37.93
ATOM	10842	NH2	ARG	B	623	88.902	46.204	63.527	1.00 38.72
ATOM	10843	N	ILE	B	624	86.944	53.923	61.080	1.00 29.13
ATOM	10844	CA	ILE	B	624	86.370	55.044	61.773	1.00 28.86
ATOM	10845	C	ILE	B	624	85.078	55.496	61.104	1.00 28.02
ATOM	10846	O	ILE	B	624	85.050	55.756	59.897	1.00 27.56
ATOM	10847	CB	ILE	B	624	87.327	56.199	61.805	1.00 29.62
ATOM	10848	CG1	ILE	B	624	88.700	55.682	62.273	1.00 31.76
ATOM	10849	CG2	ILE	B	624	86.773	57.277	62.713	1.00 26.67
ATOM	10850	CD1	ILE	B	624	89.588	56.760	62.828	1.00 34.52
ATOM	10851	N	ALA	B	625	84.011	55.545	61.902	1.00 27.38
ATOM	10852	CA	ALA	B	625	82.688	55.998	61.480	1.00 26.62
ATOM	10853	C	ALA	B	625	82.232	57.184	62.293	1.00 26.66
ATOM	10854	O	ALA	B	625	82.800	57.490	63.366	1.00 26.60
ATOM	10855	CB	ALA	B	625	81.694	54.880	61.663	1.00 27.16
ATOM	10856	N	ILE	B	626	81.165	57.826	61.832	1.00 25.62
ATOM	10857	CA	ILE	B	626	80.584	58.918	62.591	1.00 25.90
ATOM	10858	C	ILE	B	626	79.033	58.874	62.559	1.00 25.62
ATOM	10859	O	ILE	B	626	78.433	58.405	61.593	1.00 24.90
ATOM	10860	CB	ILE	B	626	81.107	60.237	62.034	1.00 25.89
ATOM	10861	CG1	ILE	B	626	80.392	61.433	62.664	1.00 26.49
ATOM	10862	CG2	ILE	B	626	80.877	60.271	60.593	1.00 25.97
ATOM	10863	CD1	ILE	B	626	81.076	62.736	62.353	1.00 26.25
ATOM	10864	N	TRP	B	627	78.389	59.326	63.635	1.00 25.37
ATOM	10865	CA	TRP	B	627	76.932	59.378	63.642	1.00 25.54
ATOM	10866	C	TRP	B	627	76.355	60.378	64.609	1.00 25.72
ATOM	10867	O	TRP	B	627	77.024	60.856	65.563	1.00 23.56
ATOM	10868	CB	TRP	B	627	76.338	58.002	63.902	1.00 26.23
ATOM	10869	CG	TRP	B	627	75.971	57.723	65.307	1.00 26.20
ATOM	10870	CD1	TRP	B	627	76.804	57.334	66.314	1.00 27.25
ATOM	10871	CD2	TRP	B	627	74.668	57.779	65.865	1.00 28.18
ATOM	10872	NE1	TRP	B	627	76.093	57.163	67.478	1.00 30.10
ATOM	10873	CE2	TRP	B	627	74.777	57.434	67.232	1.00 29.88
ATOM	10874	CE3	TRP	B	627	73.415	58.131	65.365	1.00 30.86
ATOM	10875	CZ2	TRP	B	627	73.693	57.402	68.075	1.00 30.30
ATOM	10876	CZ3	TRP	B	627	72.339	58.087	66.207	1.00 30.30
ATOM	10877	CH2	TRP	B	627	72.486	57.738	67.545	1.00 31.45
ATOM	10878	N	GLY	B	628	75.094	60.706	64.337	1.00 25.24
ATOM	10879	CA	GLY	B	628	74.390	61.673	65.142	1.00 25.27
ATOM	10880	C	GLY	B	628	72.983	61.934	64.681	1.00 24.81
ATOM	10881	O	GLY	B	628	72.542	61.457	63.623	1.00 26.04
ATOM	10882	N	TRP	B	629	72.300	62.719	65.484	1.00 24.13
ATOM	10883	CA	TRP	B	629	70.876	62.978	65.343	1.00 24.48
ATOM	10884	C	TRP	B	629	70.629	64.466	65.431	1.00 23.61
ATOM	10885	O	TRP	B	629	71.149	65.111	66.328	1.00 23.92
ATOM	10886	CB	TRP	B	629	70.206	62.301	66.553	1.00 24.77
ATOM	10887	CG	TRP	B	629	68.757	61.953	66.444	1.00 24.22
ATOM	10888	CD1	TRP	B	629	67.736	62.796	66.211	1.00 22.92
ATOM	10889	CD2	TRP	B	629	68.169	60.661	66.678	1.00 23.65
ATOM	10890	NE1	TRP	B	629	66.547	62.111	66.246	1.00 24.46
ATOM	10891	CE2	TRP	B	629	66.786	60.803	66.550	1.00 22.65
ATOM	10892	CE3	TRP	B	629	68.685	59.403	66.999	1.00 24.62
ATOM	10893	CZ2	TRP	B	629	65.904	59.756	66.709	1.00 24.04
ATOM	10894	CZ3	TRP	B	629	67.807	58.361	67.167	1.00 27.54
ATOM	10895	CH2	TRP	B	629	66.421	58.545	67.022	1.00 24.47
ATOM	10896	N	SER	B	630	69.846	65.011	64.518	1.00 23.06
ATOM	10897	CA	SER	B	630	69.485	66.425	64.581	1.00 23.38
ATOM	10898	C	SER	B	630	70.723	67.254	64.264	1.00 23.53
ATOM	10899	O	SER	B	630	71.281	67.062	63.174	1.00 24.59
ATOM	10900	CB	SER	B	630	68.828	66.734	65.925	1.00 23.43
ATOM	10901	OG	SER	B	630	68.001	67.853	65.825	1.00 24.43
ATOM	10902	N	TYR	B	631	71.184	68.138	65.153	1.00 22.69
ATOM	10903	CA	TYR	B	631	72.402	68.853	64.874	1.00 21.94
ATOM	10904	C	TYR	B	631	73.504	67.820	64.589	1.00 21.26
ATOM	10905	O	TYR	B	631	74.304	67.972	63.686	1.00 18.51
ATOM	10906	CB	TYR	B	631	72.797	69.855	65.987	1.00 21.15

ATOM	10907	CG	TYR	B	631	73.646	70.999	65.477	1.00 22.05
ATOM	10908	CD1	TYR	B	631	74.992	70.829	65.194	1.00 26.96
ATOM	10909	CD2	TYR	B	631	73.118	72.225	65.281	1.00 25.64
ATOM	10910	CE1	TYR	B	631	75.780	71.878	64.717	1.00 24.46
ATOM	10911	CE2	TYR	B	631	73.889	73.281	64.805	1.00 26.67
ATOM	10912	CZ	TYR	B	631	75.213	73.090	64.515	1.00 24.34
ATOM	10913	OH	TYR	B	631	75.955	74.140	64.047	1.00 24.92
ATOM	10914	N	GLY	B	632	73.511	66.743	65.366	1.00 21.64
ATOM	10915	CA	GLY	B	632	74.465	65.679	65.120	1.00 21.85
ATOM	10916	C	GLY	B	632	74.338	65.083	63.728	1.00 23.13
ATOM	10917	O	GLY	B	632	75.323	64.583	63.184	1.00 22.77
ATOM	10918	N	GLY	B	633	73.138	65.138	63.139	1.00 23.35
ATOM	10919	CA	GLY	B	633	72.944	64.608	61.800	1.00 23.84
ATOM	10920	C	GLY	B	633	73.525	65.537	60.736	1.00 23.80
ATOM	10921	O	GLY	B	633	74.095	65.114	59.758	1.00 23.33
ATOM	10922	N	TYR	B	634	73.344	66.828	60.937	1.00 24.33
ATOM	10923	CA	TYR	B	634	73.911	67.831	60.064	1.00 24.48
ATOM	10924	C	TYR	B	634	75.442	67.723	60.070	1.00 25.35
ATOM	10925	O	TYR	B	634	76.078	67.661	58.998	1.00 24.10
ATOM	10926	CB	TYR	B	634	73.485	69.181	60.609	1.00 24.24
ATOM	10927	CG	TYR	B	634	74.110	70.393	59.949	1.00 26.45
ATOM	10928	CD1	TYR	B	634	73.843	70.714	58.629	1.00 25.37
ATOM	10929	CD2	TYR	B	634	74.927	71.248	60.677	1.00 25.94
ATOM	10930	CE1	TYR	B	634	74.399	71.834	58.047	1.00 27.88
ATOM	10931	CE2	TYR	B	634	75.490	72.378	60.109	1.00 26.59
ATOM	10932	CZ	TYR	B	634	75.234	72.675	58.806	1.00 29.36
ATOM	10933	OH	TYR	B	634	75.812	73.802	58.241	1.00 28.75
ATOM	10934	N	VAL	B	635	76.025	67.702	61.280	1.00 24.81
ATOM	10935	CA	VAL	B	635	77.487	67.681	61.406	1.00 25.08
ATOM	10936	C	VAL	B	635	78.055	66.432	60.774	1.00 24.69
ATOM	10937	O	VAL	B	635	79.019	66.512	60.003	1.00 23.47
ATOM	10938	CB	VAL	B	635	77.966	67.859	62.895	1.00 24.90
ATOM	10939	CG1	VAL	B	635	79.469	67.653	63.033	1.00 25.55
ATOM	10940	CG2	VAL	B	635	77.553	69.233	63.354	1.00 26.03
ATOM	10941	N	THR	B	636	77.438	65.292	61.063	1.00 25.24
ATOM	10942	CA	THR	B	636	77.819	64.024	60.439	1.00 25.51
ATOM	10943	C	THR	B	636	77.768	64.125	58.931	1.00 26.59
ATOM	10944	O	THR	B	636	78.602	63.524	58.224	1.00 28.02
ATOM	10945	CB	THR	B	636	76.827	62.951	60.801	1.00 25.92
ATOM	10946	OG1	THR	B	636	76.883	62.701	62.188	1.00 24.04
ATOM	10947	CG2	THR	B	636	77.181	61.551	60.119	1.00 25.77
ATOM	10948	N	SER	B	637	76.774	64.848	58.429	1.00 26.02
ATOM	10949	CA	SER	B	637	76.591	64.956	56.999	1.00 26.59
ATOM	10950	C	SER	B	637	77.638	65.867	56.384	1.00 26.80
ATOM	10951	O	SER	B	637	78.242	65.539	55.354	1.00 26.72
ATOM	10952	CB	SER	B	637	75.170	65.405	56.663	1.00 26.60
ATOM	10953	OG	SER	B	637	74.215	64.389	57.024	1.00 26.80
ATOM	10954	N	MET	B	638	77.882	66.985	57.042	1.00 27.30
ATOM	10955	CA	MET	B	638	78.882	67.937	56.597	1.00 27.13
ATOM	10956	C	MET	B	638	80.245	67.261	56.653	1.00 27.34
ATOM	10957	O	MET	B	638	81.064	67.389	55.746	1.00 27.78
ATOM	10958	CB	MET	B	638	78.822	69.183	57.477	1.00 27.08
ATOM	10959	CG	MET	B	638	77.519	69.960	57.350	1.00 26.30
ATOM	10960	SD	MET	B	638	77.261	70.726	55.761	1.00 28.61
ATOM	10961	CE	MET	B	638	78.254	72.143	55.853	1.00 26.11
ATOM	10962	N	VAL	B	639	80.480	66.486	57.689	1.00 27.29
ATOM	10963	CA	VAL	B	639	81.743	65.787	57.804	1.00 27.36
ATOM	10964	C	VAL	B	639	81.896	64.778	56.687	1.00 27.81
ATOM	10965	O	VAL	B	639	82.939	64.720	56.049	1.00 27.30
ATOM	10966	CB	VAL	B	639	81.870	65.024	59.092	1.00 26.81
ATOM	10967	CG1	VAL	B	639	83.004	64.058	58.981	1.00 26.22
ATOM	10968	CG2	VAL	B	639	82.091	65.966	60.253	1.00 26.28
ATOM	10969	N	LEU	B	640	80.875	63.961	56.467	1.00 27.96
ATOM	10970	CA	LEU	B	640	80.961	62.971	55.410	1.00 28.54
ATOM	10971	C	LEU	B	640	81.085	63.628	54.037	1.00 28.94
ATOM	10972	O	LEU	B	640	81.571	63.015	53.107	1.00 29.26
ATOM	10973	CB	LEU	B	640	79.754	62.024	55.416	1.00 28.12
ATOM	10974	CG	LEU	B	640	79.710	61.126	56.631	1.00 27.04
ATOM	10975	CD1	LEU	B	640	78.400	60.545	56.665	1.00 27.15
ATOM	10976	CD2	LEU	B	640	80.752	60.066	56.551	1.00 27.07

ATOM	10977	N	GLY	B	641	80.615	64.858	53.922	1.00	28.92
ATOM	10978	CA	GLY	B	641	80.716	65.577	52.690	1.00	29.39
ATOM	10979	C	GLY	B	641	81.948	66.473	52.614	1.00	29.96
ATOM	10980	O	GLY	B	641	82.051	67.295	51.696	1.00	29.05
ATOM	10981	N	SER	B	642	82.873	66.316	53.560	1.00	29.53
ATOM	10982	CA	SER	B	642	84.017	67.187	53.620	1.00	29.91
ATOM	10983	C	SER	B	642	85.170	66.768	52.678	1.00	31.18
ATOM	10984	O	SER	B	642	85.976	67.607	52.287	1.00	31.66
ATOM	10985	CB	SER	B	642	84.582	67.206	55.028	1.00	29.68
ATOM	10986	OG	SER	B	642	85.219	65.956	55.281	1.00	28.01
ATOM	10987	N	GLY	B	643	85.259	65.483	52.364	1.00	32.16
ATOM	10988	CA	GLY	B	643	86.341	64.941	51.565	1.00	33.04
ATOM	10989	C	GLY	B	643	87.582	64.561	52.375	1.00	33.77
ATOM	10990	O	GLY	B	643	88.597	64.215	51.814	1.00	33.62
ATOM	10991	N	SER	B	644	87.463	64.579	53.695	1.00	34.07
ATOM	10992	CA	SER	B	644	88.615	64.404	54.595	1.00	34.04
ATOM	10993	C	SER	B	644	89.333	63.079	54.409	1.00	34.10
ATOM	10994	O	SER	B	644	90.552	62.990	54.610	1.00	34.02
ATOM	10995	CB	SER	B	644	88.167	64.519	56.075	1.00	33.03
ATOM	10996	OG	SER	B	644	87.585	63.294	56.498	1.00	31.58
ATOM	10997	N	GLY	B	645	88.569	62.047	54.075	1.00	34.16
ATOM	10998	CA	GLY	B	645	89.112	60.707	53.898	1.00	33.94
ATOM	10999	C	GLY	B	645	89.207	59.961	55.203	1.00	34.82
ATOM	11000	O	GLY	B	645	89.521	58.765	55.245	1.00	35.73
ATOM	11001	N	VAL	B	646	88.917	60.647	56.300	1.00	34.33
ATOM	11002	CA	VAL	B	646	89.080	60.025	57.605	1.00	33.90
ATOM	11003	C	VAL	B	646	87.989	59.008	57.932	1.00	33.16
ATOM	11004	O	VAL	B	646	88.235	58.021	58.615	1.00	32.54
ATOM	11005	CB	VAL	B	646	89.111	61.129	58.672	1.00	34.58
ATOM	11006	CG1	VAL	B	646	89.123	60.546	60.086	1.00	34.63
ATOM	11007	CG2	VAL	B	646	90.338	62.054	58.407	1.00	34.31
ATOM	11008	N	PHE	B	647	86.780	59.217	57.433	1.00	32.43
ATOM	11009	CA	PHE	B	647	85.668	58.345	57.828	1.00	32.12
ATOM	11010	C	PHE	B	647	85.239	57.394	56.756	1.00	31.73
ATOM	11011	O	PHE	B	647	85.004	57.789	55.670	1.00	32.31
ATOM	11012	CB	PHE	B	647	84.484	59.215	58.241	1.00	32.01
ATOM	11013	CG	PHE	B	647	84.819	60.173	59.325	1.00	31.30
ATOM	11014	CD1	PHE	B	647	85.398	61.391	59.037	1.00	31.77
ATOM	11015	CD2	PHE	B	647	84.561	59.863	60.641	1.00	31.08
ATOM	11016	CE1	PHE	B	647	85.716	62.284	60.066	1.00	28.09
ATOM	11017	CE2	PHE	B	647	84.894	60.754	61.656	1.00	28.81
ATOM	11018	CZ	PHE	B	647	85.477	61.944	61.353	1.00	27.39
ATOM	11019	N	LYS	B	648	85.096	56.127	57.090	1.00	32.24
ATOM	11020	CA	LYS	B	648	84.673	55.125	56.138	1.00	31.64
ATOM	11021	C	LYS	B	648	83.168	55.162	55.964	1.00	32.05
ATOM	11022	O	LYS	B	648	82.679	54.875	54.897	1.00	30.31
ATOM	11023	CB	LYS	B	648	85.045	53.751	56.660	1.00	32.05
ATOM	11024	CG	LYS	B	648	84.533	52.555	55.852	1.00	31.04
ATOM	11025	CD	LYS	B	648	85.342	51.367	56.257	1.00	32.31
ATOM	11026	CE	LYS	B	648	84.668	50.064	56.104	1.00	35.71
ATOM	11027	NZ	LYS	B	648	84.285	49.810	54.731	1.00	39.53
ATOM	11028	N	CYS	B	649	82.422	55.500	57.013	1.00	31.54
ATOM	11029	CA	CYS	B	649	80.966	55.524	56.893	1.00	32.41
ATOM	11030	C	CYS	B	649	80.289	56.334	57.988	1.00	31.12
ATOM	11031	O	CYS	B	649	80.907	56.668	58.967	1.00	30.91
ATOM	11032	CB	CYS	B	649	80.428	54.118	56.967	1.00	32.74
ATOM	11033	SG	CYS	B	649	80.676	53.369	58.582	1.00	37.84
ATOM	11034	N	GLY	B	650	79.015	56.663	57.789	1.00	30.42
ATOM	11035	CA	GLY	B	650	78.238	57.378	58.787	1.00	29.72
ATOM	11036	C	GLY	B	650	76.727	57.321	58.638	1.00	28.44
ATOM	11037	O	GLY	B	650	76.193	56.973	57.571	1.00	27.80
ATOM	11038	N	ILE	B	651	76.055	57.697	59.731	1.00	26.95
ATOM	11039	CA	ILE	B	651	74.614	57.677	59.821	1.00	25.90
ATOM	11040	C	ILE	B	651	74.102	59.005	60.319	1.00	25.19
ATOM	11041	O	ILE	B	651	74.453	59.425	61.392	1.00	24.71
ATOM	11042	CB	ILE	B	651	74.137	56.626	60.817	1.00	25.72
ATOM	11043	CG1	ILE	B	651	74.768	55.285	60.574	1.00	24.38
ATOM	11044	CG2	ILE	B	651	72.594	56.507	60.774	1.00	26.85
ATOM	11045	CD1	ILE	B	651	74.579	54.338	61.740	1.00	26.43
ATOM	11046	N	ALA	B	652	73.254	59.651	59.538	1.00	24.38

ATOM	11047	CA	ALA	B	652	72.638	60.873	59.953	1.00	24.14
ATOM	11048	C	ALA	B	652	71.128	60.638	60.160	1.00	24.49
ATOM	11049	O	ALA	B	652	70.425	60.230	59.236	1.00	24.20
ATOM	11050	CB	ALA	B	652	72.879	61.919	58.931	1.00	23.84
ATOM	11051	N	VAL	B	653	70.638	60.921	61.361	1.00	24.13
ATOM	11052	CA	VAL	B	653	69.238	60.712	61.690	1.00	23.22
ATOM	11053	C	VAL	B	653	68.633	62.063	61.885	1.00	22.38
ATOM	11054	O	VAL	B	653	69.149	62.864	62.635	1.00	20.78
ATOM	11055	CB	VAL	B	653	69.077	59.917	62.993	1.00	23.83
ATOM	11056	CG1	VAL	B	653	67.599	59.668	63.306	1.00	25.62
ATOM	11057	CG2	VAL	B	653	69.837	58.616	62.932	1.00	23.64
ATOM	11058	N	ALA	B	654	67.538	62.300	61.172	1.00	22.38
ATOM	11059	CA	ALA	B	654	66.783	63.561	61.200	1.00	22.03
ATOM	11060	C	ALA	B	654	67.645	64.821	61.182	1.00	22.07
ATOM	11061	O	ALA	B	654	67.473	65.774	61.948	1.00	22.17
ATOM	11062	CB	ALA	B	654	65.812	63.558	62.309	1.00	22.31
ATOM	11063	N	PRO	B	655	68.523	64.883	60.208	1.00	22.10
ATOM	11064	CA	PRO	B	655	69.455	66.002	60.119	1.00	22.53
ATOM	11065	C	PRO	B	655	68.845	67.297	59.654	1.00	23.04
ATOM	11066	O	PRO	B	655	67.907	67.279	58.873	1.00	22.83
ATOM	11067	CB	PRO	B	655	70.425	65.536	59.034	1.00	21.39
ATOM	11068	CG	PRO	B	655	69.488	64.812	58.095	1.00	22.64
ATOM	11069	CD	PRO	B	655	68.706	63.928	59.102	1.00	22.27
ATOM	11070	N	VAL	B	656	69.387	68.415	60.130	1.00	23.35
ATOM	11071	CA	VAL	B	656	69.122	69.685	59.474	1.00	23.76
ATOM	11072	C	VAL	B	656	69.979	69.620	58.218	1.00	22.91
ATOM	11073	O	VAL	B	656	71.054	69.072	58.281	1.00	21.69
ATOM	11074	CB	VAL	B	656	69.627	70.838	60.331	1.00	24.87
ATOM	11075	CG1	VAL	B	656	69.783	72.094	59.487	1.00	25.30
ATOM	11076	CG2	VAL	B	656	68.687	71.073	61.522	1.00	25.10
ATOM	11077	N	SER	B	657	69.520	70.141	57.088	1.00	23.02
ATOM	11078	CA	SER	B	657	70.337	70.107	55.856	1.00	23.47
ATOM	11079	C	SER	B	657	70.642	71.474	55.351	1.00	23.21
ATOM	11080	O	SER	B	657	71.584	71.633	54.620	1.00	23.83
ATOM	11081	CB	SER	B	657	69.650	69.306	54.731	1.00	23.46
ATOM	11082	OG	SER	B	657	68.412	69.873	54.391	1.00	24.11
ATOM	11083	N	ARG	B	658	69.894	72.470	55.816	1.00	23.91
ATOM	11084	CA	ARG	B	658	69.950	73.807	55.268	1.00	24.20
ATOM	11085	C	ARG	B	658	69.214	74.683	56.216	1.00	24.78
ATOM	11086	O	ARG	B	658	68.035	74.396	56.586	1.00	24.47
ATOM	11087	CB	ARG	B	658	69.275	73.816	53.920	1.00	26.18
ATOM	11088	CG	ARG	B	658	69.037	75.156	53.338	1.00	27.15
ATOM	11089	CD	ARG	B	658	68.373	75.065	52.046	1.00	29.42
ATOM	11090	NE	ARG	B	658	68.658	76.130	51.134	1.00	32.58
ATOM	11091	CZ	ARG	B	658	67.776	76.999	50.687	1.00	38.45
ATOM	11092	NH1	ARG	B	658	66.518	76.975	51.125	1.00	41.84
ATOM	11093	NH2	ARG	B	658	68.153	77.918	49.791	1.00	37.18
ATOM	11094	N	TRP	B	659	69.888	75.755	56.624	1.00	24.24
ATOM	11095	CA	TRP	B	659	69.449	76.533	57.741	1.00	25.17
ATOM	11096	C	TRP	B	659	68.193	77.296	57.439	1.00	25.41
ATOM	11097	O	TRP	B	659	67.378	77.516	58.338	1.00	24.31
ATOM	11098	CB	TRP	B	659	70.610	77.363	58.354	1.00	25.34
ATOM	11099	CG	TRP	B	659	71.507	76.474	59.089	1.00	25.05
ATOM	11100	CD1	TRP	B	659	72.773	76.130	58.761	1.00	26.68
ATOM	11101	CD2	TRP	B	659	71.194	75.758	60.275	1.00	21.37
ATOM	11102	NE1	TRP	B	659	73.260	75.222	59.662	1.00	26.82
ATOM	11103	CE2	TRP	B	659	72.300	74.975	60.597	1.00	22.41
ATOM	11104	CE3	TRP	B	659	70.073	75.687	61.091	1.00	21.36
ATOM	11105	CZ2	TRP	B	659	72.334	74.164	61.710	1.00	22.83
ATOM	11106	CZ3	TRP	B	659	70.103	74.876	62.200	1.00	18.75
ATOM	11107	CH2	TRP	B	659	71.201	74.125	62.494	1.00	20.87
ATOM	11108	N	GLU	B	660	67.951	77.556	56.158	1.00	25.57
ATOM	11109	CA	GLU	B	660	66.691	78.180	55.733	1.00	26.05
ATOM	11110	C	GLU	B	660	65.523	77.225	55.997	1.00	25.19
ATOM	11111	O	GLU	B	660	64.406	77.669	56.099	1.00	25.53
ATOM	11112	CB	GLU	B	660	66.702	78.651	54.243	1.00	27.16
ATOM	11113	CG	GLU	B	660	67.219	80.087	54.084	1.00	31.79
ATOM	11114	CD	GLU	B	660	67.825	80.417	52.703	1.00	35.43
ATOM	11115	OE1	GLU	B	660	68.987	80.034	52.429	1.00	36.77
ATOM	11116	OE2	GLU	B	660	67.151	81.092	51.884	1.00	38.64

ATOM	11117	N	TYR	B	661	65.745	75.931	56.172	1.00	24.04
ATOM	11118	CA	TYR	B	661	64.596	75.073	56.481	1.00	23.76
ATOM	11119	C	TYR	B	661	64.227	75.006	57.960	1.00	23.19
ATOM	11120	O	TYR	B	661	63.156	74.455	58.326	1.00	23.04
ATOM	11121	CB	TYR	B	661	64.844	73.629	56.023	1.00	24.22
ATOM	11122	CG	TYR	B	661	65.054	73.451	54.570	1.00	23.41
ATOM	11123	CD1	TYR	B	661	64.499	74.306	53.638	1.00	25.96
ATOM	11124	CD2	TYR	B	661	65.813	72.391	54.102	1.00	28.26
ATOM	11125	CE1	TYR	B	661	64.750	74.139	52.255	1.00	24.48
ATOM	11126	CE2	TYR	B	661	66.026	72.195	52.733	1.00	26.73
ATOM	11127	CZ	TYR	B	661	65.500	73.078	51.826	1.00	27.30
ATOM	11128	OH	TYR	B	661	65.727	72.842	50.473	1.00	31.51
ATOM	11129	N	TYR	B	662	65.093	75.552	58.817	1.00	22.68
ATOM	11130	CA	TYR	B	662	64.879	75.452	60.256	1.00	22.16
ATOM	11131	C	TYR	B	662	64.161	76.652	60.890	1.00	22.58
ATOM	11132	O	TYR	B	662	63.988	77.668	60.239	1.00	21.76
ATOM	11133	CB	TYR	B	662	66.164	75.072	60.980	1.00	22.02
ATOM	11134	CG	TYR	B	662	65.868	74.449	62.325	1.00	21.48
ATOM	11135	CD1	TYR	B	662	65.003	73.388	62.411	1.00	21.91
ATOM	11136	CD2	TYR	B	662	66.387	74.967	63.495	1.00	23.40
ATOM	11137	CE1	TYR	B	662	64.649	72.838	63.607	1.00	22.92
ATOM	11138	CE2	TYR	B	662	66.054	74.383	64.770	1.00	24.30
ATOM	11139	CZ	TYR	B	662	65.174	73.322	64.797	1.00	24.12
ATOM	11140	OH	TYR	B	662	64.801	72.662	65.959	1.00	19.23
ATOM	11141	N	ASP	B	663	63.669	76.493	62.123	1.00	22.74
ATOM	11142	CA	ASP	B	663	62.882	77.560	62.761	1.00	24.01
ATOM	11143	C	ASP	B	663	63.660	78.860	63.030	1.00	24.75
ATOM	11144	O	ASP	B	663	64.884	78.873	63.182	1.00	24.67
ATOM	11145	CB	ASP	B	663	62.075	77.087	63.970	1.00	23.36
ATOM	11146	CG	ASP	B	663	62.895	76.808	65.212	1.00	24.97
ATOM	11147	OD1	ASP	B	663	63.512	77.721	65.839	1.00	21.98
ATOM	11148	OD2	ASP	B	663	62.889	75.668	65.707	1.00	27.41
ATOM	11149	N	SER	B	664	62.919	79.956	63.000	1.00	25.55
ATOM	11150	CA	SER	B	664	63.519	81.272	63.135	1.00	26.43
ATOM	11151	C	SER	B	664	64.241	81.495	64.431	1.00	26.07
ATOM	11152	O	SER	B	664	65.350	81.982	64.430	1.00	26.65
ATOM	11153	CB	SER	B	664	62.452	82.368	62.995	1.00	26.25
ATOM	11154	OG	SER	B	664	61.415	82.164	63.911	1.00	25.95
ATOM	11155	N	VAL	B	665	63.599	81.167	65.543	1.00	25.54
ATOM	11156	CA	VAL	B	665	64.180	81.466	66.822	1.00	25.02
ATOM	11157	C	VAL	B	665	65.531	80.820	67.018	1.00	25.27
ATOM	11158	O	VAL	B	665	66.462	81.471	67.493	1.00	25.08
ATOM	11159	CB	VAL	B	665	63.250	81.065	68.007	1.00	25.18
ATOM	11160	CG1	VAL	B	665	63.897	81.417	69.407	1.00	24.49
ATOM	11161	CG2	VAL	B	665	61.913	81.772	67.909	1.00	24.54
ATOM	11162	N	TYR	B	666	65.640	79.528	66.709	1.00	24.73
ATOM	11163	CA	TYR	B	666	66.872	78.828	66.941	1.00	23.57
ATOM	11164	C	TYR	B	666	67.916	79.252	65.928	1.00	24.38
ATOM	11165	O	TYR	B	666	69.052	79.527	66.308	1.00	24.18
ATOM	11166	CB	TYR	B	666	66.697	77.316	66.900	1.00	23.24
ATOM	11167	CG	TYR	B	666	67.994	76.469	67.056	1.00	21.71
ATOM	11168	CD1	TYR	B	666	68.850	76.288	65.993	1.00	22.85
ATOM	11169	CD2	TYR	B	666	68.300	75.864	68.254	1.00	25.29
ATOM	11170	CE1	TYR	B	666	69.985	75.538	66.098	1.00	25.06
ATOM	11171	CE2	TYR	B	666	69.470	75.074	68.414	1.00	27.49
ATOM	11172	CZ	TYR	B	666	70.306	74.934	67.322	1.00	27.05
ATOM	11173	OH	TYR	B	666	71.421	74.186	67.419	1.00	27.36
ATOM	11174	N	THR	B	667	67.532	79.343	64.658	1.00	24.04
ATOM	11175	CA	THR	B	667	68.504	79.562	63.599	1.00	24.34
ATOM	11176	C	THR	B	667	69.097	80.944	63.584	1.00	25.40
ATOM	11177	O	THR	B	667	70.315	81.104	63.493	1.00	24.23
ATOM	11178	CB	THR	B	667	67.848	79.313	62.258	1.00	25.25
ATOM	11179	OG1	THR	B	667	67.267	78.003	62.248	1.00	25.15
ATOM	11180	CG2	THR	B	667	68.876	79.340	61.107	1.00	23.81
ATOM	11181	N	GLU	B	668	68.217	81.940	63.678	1.00	26.00
ATOM	11182	CA	GLU	B	668	68.639	83.324	63.599	1.00	26.42
ATOM	11183	C	GLU	B	668	69.486	83.675	64.817	1.00	27.19
ATOM	11184	O	GLU	B	668	70.377	84.522	64.740	1.00	27.51
ATOM	11185	CB	GLU	B	668	67.417	84.233	63.498	1.00	25.94
ATOM	11186	CG	GLU	B	668	66.572	83.896	62.243	1.00	27.24

ATOM	11187	CD	GLU	B	668	65.231	84.553	62.236	1.00	28.69
ATOM	11188	OE1	GLU	B	668	65.018	85.479	63.066	1.00	29.27
ATOM	11189	OE2	GLU	B	668	64.380	84.162	61.394	1.00	30.62
ATOM	11190	N	ARG	B	669	69.252	82.995	65.928	1.00	27.00
ATOM	11191	CA	ARG	B	669	70.044	83.287	67.101	1.00	27.41
ATOM	11192	C	ARG	B	669	71.528	83.126	66.810	1.00	27.58
ATOM	11193	O	ARG	B	669	72.339	83.880	67.335	1.00	27.79
ATOM	11194	CB	ARG	B	669	69.679	82.386	68.276	1.00	26.74
ATOM	11195	CG	ARG	B	669	70.552	82.687	69.524	1.00	28.52
ATOM	11196	CD	ARG	B	669	69.894	82.262	70.799	1.00	30.22
ATOM	11197	NE	ARG	B	669	69.815	80.820	70.853	1.00	32.37
ATOM	11198	CZ	ARG	B	669	68.708	80.079	70.812	1.00	31.32
ATOM	11199	NH1	ARG	B	669	67.505	80.610	70.736	1.00	32.60
ATOM	11200	NH2	ARG	B	669	68.835	78.762	70.875	1.00	32.35
ATOM	11201	N	TYR	B	670	71.877	82.106	66.031	1.00	28.01
ATOM	11202	CA	TYR	B	670	73.256	81.851	65.678	1.00	28.42
ATOM	11203	C	TYR	B	670	73.632	82.365	64.286	1.00	29.28
ATOM	11204	O	TYR	B	670	74.809	82.531	63.980	1.00	28.53
ATOM	11205	CB	TYR	B	670	73.569	80.351	65.733	1.00	28.12
ATOM	11206	CG	TYR	B	670	73.046	79.710	66.989	1.00	28.98
ATOM	11207	CD1	TYR	B	670	73.635	79.983	68.210	1.00	31.34
ATOM	11208	CD2	TYR	B	670	71.918	78.904	66.971	1.00	27.11
ATOM	11209	CE1	TYR	B	670	73.130	79.450	69.394	1.00	29.84
ATOM	11210	CE2	TYR	B	670	71.416	78.344	68.151	1.00	26.97
ATOM	11211	CZ	TYR	B	670	72.029	78.622	69.341	1.00	27.33
ATOM	11212	OH	TYR	B	670	71.533	78.119	70.512	1.00	28.94
ATOM	11213	N	MET	B	671	72.667	82.625	63.431	1.00	30.33
ATOM	11214	CA	MET	B	671	73.046	82.882	62.049	1.00	30.67
ATOM	11215	C	MET	B	671	72.600	84.235	61.536	1.00	31.06
ATOM	11216	O	MET	B	671	72.901	84.586	60.392	1.00	30.69
ATOM	11217	CB	MET	B	671	72.442	81.795	61.132	1.00	30.61
ATOM	11218	CG	MET	B	671	73.115	80.414	61.185	1.00	30.65
ATOM	11219	SD	MET	B	671	74.640	80.253	60.254	1.00	30.11
ATOM	11220	CE	MET	B	671	73.905	80.430	58.601	1.00	32.95
ATOM	11221	N	GLY	B	672	71.831	84.952	62.336	1.00	31.71
ATOM	11222	CA	GLY	B	672	71.235	86.197	61.891	1.00	32.29
ATOM	11223	C	GLY	B	672	70.160	85.871	60.860	1.00	32.93
ATOM	11224	O	GLY	B	672	69.617	84.779	60.870	1.00	32.80
ATOM	11225	N	LEU	B	673	69.854	86.820	59.983	1.00	33.57
ATOM	11226	CA	LEU	B	673	68.852	86.643	58.947	1.00	34.26
ATOM	11227	C	LEU	B	673	69.450	86.222	57.621	1.00	35.15
ATOM	11228	O	LEU	B	673	70.515	86.694	57.218	1.00	33.95
ATOM	11229	CB	LEU	B	673	68.112	87.956	58.741	1.00	34.73
ATOM	11230	CG	LEU	B	673	67.448	88.500	60.011	1.00	36.45
ATOM	11231	CD1	LEU	B	673	66.879	89.870	59.764	1.00	36.42
ATOM	11232	CD2	LEU	B	673	66.362	87.532	60.417	1.00	36.99
ATOM	11233	N	PRO	B	674	68.749	85.352	56.903	1.00	37.00
ATOM	11234	CA	PRO	B	674	69.217	84.926	55.600	1.00	38.48
ATOM	11235	C	PRO	B	674	68.829	85.963	54.528	1.00	40.15
ATOM	11236	O	PRO	B	674	68.021	85.646	53.645	1.00	39.73
ATOM	11237	CB	PRO	B	674	68.464	83.635	55.425	1.00	37.86
ATOM	11238	CG	PRO	B	674	67.139	84.010	55.931	1.00	38.01
ATOM	11239	CD	PRO	B	674	67.477	84.689	57.226	1.00	37.42
ATOM	11240	N	THR	B	675	69.366	87.182	54.646	1.00	41.47
ATOM	11241	CA	THR	B	675	69.218	88.225	53.623	1.00	43.02
ATOM	11242	C	THR	B	675	70.611	88.638	53.146	1.00	43.72
ATOM	11243	O	THR	B	675	71.604	88.445	53.856	1.00	43.16
ATOM	11244	CB	THR	B	675	68.479	89.477	54.164	1.00	43.15
ATOM	11245	OG1	THR	B	675	69.224	90.066	55.243	1.00	45.83
ATOM	11246	CG2	THR	B	675	67.126	89.136	54.787	1.00	43.20
ATOM	11247	N	PRO	B	676	70.700	89.191	51.937	1.00	44.24
ATOM	11248	CA	PRO	B	676	71.991	89.634	51.380	1.00	44.30
ATOM	11249	C	PRO	B	676	72.603	90.713	52.256	1.00	43.57
ATOM	11250	O	PRO	B	676	73.800	90.838	52.439	1.00	43.64
ATOM	11251	CB	PRO	B	676	71.591	90.231	50.014	1.00	44.31
ATOM	11252	CG	PRO	B	676	70.307	89.548	49.685	1.00	44.53
ATOM	11253	CD	PRO	B	676	69.588	89.428	51.000	1.00	44.58
ATOM	11254	N	GLU	B	677	71.701	91.491	52.798	1.00	43.67
ATOM	11255	CA	GLU	B	677	71.973	92.572	53.706	1.00	44.03
ATOM	11256	C	GLU	B	677	72.621	92.019	54.986	1.00	43.44

ATOM	11257	O	GLU	B	677	73.256	92.771	55.728	1.00	43.51
ATOM	11258	CB	GLU	B	677	70.625	93.245	54.036	1.00	44.76
ATOM	11259	CG	GLU	B	677	69.575	93.052	52.916	1.00	47.36
ATOM	11260	CD	GLU	B	677	68.135	93.125	53.392	1.00	51.20
ATOM	11261	OE1	GLU	B	677	67.866	93.836	54.381	1.00	54.53
ATOM	11262	OE2	GLU	B	677	67.256	92.479	52.770	1.00	54.13
ATOM	11263	N	ASP	B	678	72.482	90.720	55.251	1.00	41.72
ATOM	11264	CA	ASP	B	678	73.013	90.185	56.502	1.00	41.99
ATOM	11265	C	ASP	B	678	73.846	88.917	56.341	1.00	39.07
ATOM	11266	O	ASP	B	678	75.044	88.986	56.074	1.00	37.79
ATOM	11267	CB	ASP	B	678	71.882	89.992	57.538	1.00	41.34
ATOM	11268	CG	ASP	B	678	72.413	89.618	58.936	1.00	42.84
ATOM	11269	OD1	ASP	B	678	73.628	89.707	59.162	1.00	46.59
ATOM	11270	OD2	ASP	B	678	71.699	89.210	59.868	1.00	45.40
ATOM	11271	N	ASN	B	679	73.240	87.751	56.491	1.00	37.03
ATOM	11272	CA	ASN	B	679	74.061	86.561	56.470	1.00	36.29
ATOM	11273	C	ASN	B	679	73.701	85.502	55.435	1.00	35.66
ATOM	11274	O	ASN	B	679	74.024	84.344	55.623	1.00	35.59
ATOM	11275	CB	ASN	B	679	74.112	85.966	57.888	1.00	35.38
ATOM	11276	CG	ASN	B	679	75.315	85.076	58.093	1.00	35.81
ATOM	11277	OD1	ASN	B	679	75.271	84.065	58.829	1.00	36.44
ATOM	11278	ND2	ASN	B	679	76.407	85.429	57.426	1.00	30.49
ATOM	11279	N	LEU	B	680	73.074	85.893	54.330	1.00	36.18
ATOM	11280	CA	LEU	B	680	72.665	84.940	53.282	1.00	37.04
ATOM	11281	C	LEU	B	680	73.759	84.052	52.745	1.00	37.17
ATOM	11282	O	LEU	B	680	73.558	82.845	52.559	1.00	37.42
ATOM	11283	CB	LEU	B	680	72.076	85.664	52.075	1.00	37.58
ATOM	11284	CG	LEU	B	680	70.958	85.022	51.240	1.00	39.69
ATOM	11285	CD1	LEU	B	680	71.226	85.257	49.772	1.00	41.11
ATOM	11286	CD2	LEU	B	680	70.729	83.532	51.484	1.00	40.41
ATOM	11287	N	ASP	B	681	74.926	84.623	52.483	1.00	37.50
ATOM	11288	CA	ASP	B	681	75.964	83.855	51.830	1.00	38.01
ATOM	11289	C	ASP	B	681	76.345	82.586	52.632	1.00	37.14
ATOM	11290	O	ASP	B	681	76.483	81.483	52.065	1.00	36.38
ATOM	11291	CB	ASP	B	681	77.199	84.722	51.515	1.00	39.14
ATOM	11292	CG	ASP	B	681	76.887	85.920	50.571	1.00	43.26
ATOM	11293	OD1	ASP	B	681	76.109	85.762	49.609	1.00	46.71
ATOM	11294	OD2	ASP	B	681	77.384	87.070	50.723	1.00	48.74
ATOM	11295	N	HIS	B	682	76.568	82.742	53.929	1.00	35.59
ATOM	11296	CA	HIS	B	682	76.893	81.582	54.738	1.00	35.67
ATOM	11297	C	HIS	B	682	75.673	80.632	54.930	1.00	33.61
ATOM	11298	O	HIS	B	682	75.867	79.452	55.143	1.00	33.15
ATOM	11299	CB	HIS	B	682	77.524	81.927	56.099	1.00	35.65
ATOM	11300	CG	HIS	B	682	78.040	80.714	56.806	1.00	37.66
ATOM	11301	ND1	HIS	B	682	77.298	80.030	57.750	1.00	37.90
ATOM	11302	CD2	HIS	B	682	79.190	80.012	56.659	1.00	38.17
ATOM	11303	CE1	HIS	B	682	77.969	78.967	58.159	1.00	31.97
ATOM	11304	NE2	HIS	B	682	79.123	78.935	57.518	1.00	37.82
ATOM	11305	N	TYR	B	683	74.448	81.149	54.879	1.00	32.10
ATOM	11306	CA	TYR	B	683	73.285	80.257	54.857	1.00	31.92
ATOM	11307	C	TYR	B	683	73.414	79.342	53.630	1.00	31.93
ATOM	11308	O	TYR	B	683	73.244	78.158	53.724	1.00	28.90
ATOM	11309	CB	TYR	B	683	71.986	81.044	54.770	1.00	31.15
ATOM	11310	CG	TYR	B	683	71.275	81.405	56.071	1.00	30.21
ATOM	11311	CD1	TYR	B	683	71.535	82.598	56.716	1.00	29.38
ATOM	11312	CD2	TYR	B	683	70.290	80.571	56.619	1.00	28.21
ATOM	11313	CE1	TYR	B	683	70.866	82.965	57.828	1.00	27.01
ATOM	11314	CE2	TYR	B	683	69.611	80.935	57.728	1.00	27.18
ATOM	11315	CZ	TYR	B	683	69.905	82.136	58.339	1.00	27.90
ATOM	11316	OH	TYR	B	683	69.254	82.523	59.472	1.00	27.60
ATOM	11317	N	ARG	B	684	73.825	79.909	52.490	1.00	33.70
ATOM	11318	CA	ARG	B	684	73.958	79.138	51.231	1.00	33.97
ATOM	11319	C	ARG	B	684	75.188	78.258	51.116	1.00	33.32
ATOM	11320	O	ARG	B	684	75.154	77.247	50.441	1.00	31.95
ATOM	11321	CB	ARG	B	684	73.975	80.080	50.031	1.00	35.11
ATOM	11322	CG	ARG	B	684	72.642	80.274	49.422	1.00	39.47
ATOM	11323	CD	ARG	B	684	71.744	80.970	50.302	1.00	42.04
ATOM	11324	NE	ARG	B	684	70.290	80.772	50.137	1.00	45.44
ATOM	11325	CZ	ARG	B	684	69.535	81.284	49.182	1.00	45.72
ATOM	11326	NH1	ARG	B	684	70.057	81.935	48.153	1.00	46.39

ATOM	11327	NH2	ARG	B	684	68.238	81.139	49.267	1.00 46.70
ATOM	11328	N	ASN	B	685	76.275	78.662	51.766	1.00 32.64
ATOM	11329	CA	ASN	B	685	77.527	77.935	51.742	1.00 32.24
ATOM	11330	C	ASN	B	685	77.526	76.786	52.737	1.00 31.28
ATOM	11331	O	ASN	B	685	78.473	76.008	52.780	1.00 30.38
ATOM	11332	CB	ASN	B	685	78.681	78.900	52.170	1.00 33.42
ATOM	11333	CG	ASN	B	685	79.238	79.730	51.006	1.00 38.29
ATOM	11334	OD1	ASN	B	685	78.759	79.629	49.844	1.00 44.79
ATOM	11335	ND2	ASN	B	685	80.270	80.551	51.293	1.00 42.71
ATOM	11336	N	SER	B	686	76.493	76.679	53.579	1.00 29.78
ATOM	11337	CA	SER	B	686	76.580	75.721	54.678	1.00 28.50
ATOM	11338	C	SER	B	686	75.479	74.671	54.712	1.00 28.26
ATOM	11339	O	SER	B	686	75.116	74.186	55.785	1.00 26.91
ATOM	11340	CB	SER	B	686	76.587	76.461	56.009	1.00 27.40
ATOM	11341	OG	SER	B	686	75.380	77.183	56.153	1.00 27.07
ATOM	11342	N	THR	B	687	75.014	74.283	53.532	1.00 28.34
ATOM	11343	CA	THR	B	687	74.061	73.221	53.366	1.00 27.78
ATOM	11344	C	THR	B	687	74.820	71.912	53.120	1.00 28.66
ATOM	11345	O	THR	B	687	75.969	71.921	52.657	1.00 28.67
ATOM	11346	CB	THR	B	687	73.203	73.452	52.142	1.00 27.60
ATOM	11347	CG1	THR	B	687	74.026	73.394	50.971	1.00 30.02
ATOM	11348	CG2	THR	B	687	72.548	74.850	52.110	1.00 28.26
ATOM	11349	N	VAL	B	688	74.159	70.791	53.420	1.00 27.61
ATOM	11350	CA	VAL	B	688	74.678	69.485	53.139	1.00 27.53
ATOM	11351	C	VAL	B	688	74.680	69.231	51.619	1.00 27.76
ATOM	11352	O	VAL	B	688	75.573	68.569	51.086	1.00 25.95
ATOM	11353	CB	VAL	B	688	73.801	68.405	53.828	1.00 27.65
ATOM	11354	CG1	VAL	B	688	74.189	67.016	53.405	1.00 27.71
ATOM	11355	CG2	VAL	B	688	73.874	68.538	55.383	1.00 28.56
ATOM	11356	N	MET	B	689	73.655	69.732	50.938	1.00 28.69
ATOM	11357	CA	MET	B	689	73.477	69.496	49.500	1.00 29.91
ATOM	11358	C	MET	B	689	74.662	69.928	48.657	1.00 30.86
ATOM	11359	O	MET	B	689	75.003	69.255	47.721	1.00 31.07
ATOM	11360	CB	MET	B	689	72.234	70.231	48.981	1.00 29.60
ATOM	11361	CG	MET	B	689	70.930	69.589	49.381	1.00 30.81
ATOM	11362	SD	MET	B	689	70.459	69.694	51.143	1.00 28.72
ATOM	11363	CE	MET	B	689	69.884	71.281	51.212	1.00 29.52
ATOM	11364	N	SER	B	690	75.285	71.043	49.014	1.00 32.36
ATOM	11365	CA	SER	B	690	76.424	71.574	48.286	1.00 33.32
ATOM	11366	C	SER	B	690	77.614	70.628	48.314	1.00 33.16
ATOM	11367	O	SER	B	690	78.499	70.717	47.474	1.00 33.15
ATOM	11368	CB	SER	B	690	76.845	72.948	48.858	1.00 34.19
ATOM	11369	OG	SER	B	690	77.345	72.867	50.191	1.00 34.77
ATOM	11370	N	ARG	B	691	77.628	69.709	49.261	1.00 32.36
ATOM	11371	CA	ARG	B	691	78.734	68.783	49.374	1.00 31.79
ATOM	11372	C	ARG	B	691	78.420	67.428	48.792	1.00 31.37
ATOM	11373	O	ARG	B	691	79.177	66.516	48.970	1.00 31.21
ATOM	11374	CB	ARG	B	691	79.083	68.599	50.840	1.00 32.03
ATOM	11375	CG	ARG	B	691	79.171	69.886	51.582	1.00 33.93
ATOM	11376	CD	ARG	B	691	79.839	69.788	52.943	1.00 34.80
ATOM	11377	NE	ARG	B	691	80.389	71.079	53.379	1.00 35.85
ATOM	11378	CZ	ARG	B	691	81.344	71.205	54.309	1.00 34.51
ATOM	11379	NH1	ARG	B	691	81.836	70.137	54.906	1.00 30.90
ATOM	11380	NH2	ARG	B	691	81.789	72.405	54.651	1.00 36.61
ATOM	11381	N	ALA	B	692	77.319	67.305	48.064	1.00 31.22
ATOM	11382	CA	ALA	B	692	76.877	66.016	47.558	1.00 31.18
ATOM	11383	C	ALA	B	692	77.953	65.161	46.871	1.00 31.15
ATOM	11384	O	ALA	B	692	78.087	63.959	47.160	1.00 30.04
ATOM	11385	CB	ALA	B	692	75.692	66.245	46.604	1.00 31.81
ATOM	11386	N	GLU	B	693	78.727	65.767	45.980	1.00 31.68
ATOM	11387	CA	GLU	B	693	79.738	65.032	45.223	1.00 32.97
ATOM	11388	C	GLU	B	693	80.723	64.204	46.083	1.00 32.82
ATOM	11389	O	GLU	B	693	81.062	63.089	45.698	1.00 31.25
ATOM	11390	CB	GLU	B	693	80.494	65.971	44.273	1.00 34.43
ATOM	11391	CG	GLU	B	693	79.567	67.035	43.690	1.00 40.37
ATOM	11392	CD	GLU	B	693	79.988	67.617	42.355	1.00 49.09
ATOM	11393	OE1	GLU	B	693	80.533	66.861	41.489	1.00 54.53
ATOM	11394	OE2	GLU	B	693	79.732	68.843	42.166	1.00 53.36
ATOM	11395	N	ASN	B	694	81.134	64.715	47.248	1.00 33.08
ATOM	11396	CA	ASN	B	694	82.109	64.029	48.119	1.00 33.68

ATOM	11397	C	ASN	B	694	81.570	62.806	48.868	1.00	34.46
ATOM	11398	O	ASN	B	694	82.305	62.082	49.544	1.00	35.44
ATOM	11399	CB	ASN	B	694	82.682	65.018	49.143	1.00	34.38
ATOM	11400	CG	ASN	B	694	83.586	66.086	48.505	1.00	35.36
ATOM	11401	OD1	ASN	B	694	84.453	65.786	47.686	1.00	40.24
ATOM	11402	ND2	ASN	B	694	83.386	67.316	48.888	1.00	34.81
ATOM	11403	N	PHE	B	695	80.269	62.571	48.777	1.00	34.92
ATOM	11404	CA	PHE	B	695	79.689	61.450	49.453	1.00	34.22
ATOM	11405	C	PHE	B	695	79.991	60.193	48.692	1.00	34.61
ATOM	11406	O	PHE	B	695	79.716	59.100	49.181	1.00	33.25
ATOM	11407	CB	PHE	B	695	78.192	61.644	49.575	1.00	34.62
ATOM	11408	CG	PHE	B	695	77.772	62.458	50.744	1.00	32.13
ATOM	11409	CD1	PHE	B	695	77.832	63.813	50.707	1.00	31.70
ATOM	11410	CD2	PHE	B	695	77.245	61.858	51.854	1.00	34.97
ATOM	11411	CE1	PHE	B	695	77.404	64.565	51.762	1.00	32.49
ATOM	11412	CE2	PHE	B	695	76.799	62.612	52.922	1.00	34.20
ATOM	11413	CZ	PHE	B	695	76.882	63.968	52.873	1.00	32.00
ATOM	11414	N	LYS	B	696	80.576	60.343	47.496	1.00	35.78
ATOM	11415	CA	LYS	B	696	80.986	59.173	46.713	1.00	36.63
ATOM	11416	C	LYS	B	696	82.089	58.418	47.417	1.00	36.37
ATOM	11417	O	LYS	B	696	82.193	57.220	47.250	1.00	36.72
ATOM	11418	CB	LYS	B	696	81.296	59.492	45.223	1.00	37.25
ATOM	11419	CG	LYS	B	696	82.562	60.245	44.839	1.00	40.92
ATOM	11420	CD	LYS	B	696	82.355	61.033	43.490	1.00	44.08
ATOM	11421	CE	LYS	B	696	83.601	61.872	43.107	1.00	46.36
ATOM	11422	NZ	LYS	B	696	83.396	62.925	42.052	1.00	45.25
ATOM	11423	N	GLN	B	697	82.839	59.094	48.290	1.00	36.14
ATOM	11424	CA	GLN	B	697	83.938	58.448	49.033	1.00	35.61
ATOM	11425	C	GLN	B	697	83.488	57.706	50.333	1.00	34.57
ATOM	11426	O	GLN	B	697	84.291	57.075	51.005	1.00	33.84
ATOM	11427	CB	GLN	B	697	84.984	59.505	49.417	1.00	35.75
ATOM	11428	CG	GLN	B	697	85.543	60.418	48.287	1.00	39.27
ATOM	11429	CD	GLN	B	697	86.447	61.543	48.835	1.00	44.90
ATOM	11430	OE1	GLN	B	697	87.581	61.288	49.275	1.00	49.24
ATOM	11431	NE2	GLN	B	697	85.929	62.783	48.843	1.00	47.40
ATOM	11432	N	VAL	B	698	82.210	57.755	50.681	1.00	33.48
ATOM	11433	CA	VAL	B	698	81.760	57.191	51.967	1.00	31.84
ATOM	11434	C	VAL	B	698	80.462	56.400	51.846	1.00	31.25
ATOM	11435	O	VAL	B	698	79.782	56.489	50.826	1.00	30.83
ATOM	11436	CB	VAL	B	698	81.539	58.324	52.958	1.00	31.73
ATOM	11437	CG1	VAL	B	698	82.813	59.102	53.216	1.00	30.88
ATOM	11438	CG2	VAL	B	698	80.491	59.258	52.452	1.00	32.77
ATOM	11439	N	GLU	B	699	80.145	55.598	52.869	1.00	30.04
ATOM	11440	CA	GLU	B	699	78.878	54.868	52.939	1.00	29.36
ATOM	11441	C	GLU	B	699	78.014	55.697	53.882	1.00	28.35
ATOM	11442	O	GLU	B	699	78.437	55.958	55.029	1.00	26.89
ATOM	11443	CB	GLU	B	699	79.026	53.449	53.492	1.00	29.28
ATOM	11444	CG	GLU	B	699	79.896	52.499	52.658	1.00	34.79
ATOM	11445	CD	GLU	B	699	80.472	51.307	53.466	1.00	41.12
ATOM	11446	OE1	GLU	B	699	79.746	50.719	54.317	1.00	44.68
ATOM	11447	OE2	GLU	B	699	81.662	50.940	53.250	1.00	45.23
ATOM	11448	N	TYR	B	700	76.839	56.121	53.394	1.00	26.10
ATOM	11449	CA	TYR	B	700	75.930	56.964	54.143	1.00	25.87
ATOM	11450	C	TYR	B	700	74.560	56.293	54.351	1.00	25.50
ATOM	11451	O	TYR	B	700	73.997	55.657	53.418	1.00	24.19
ATOM	11452	CB	TYR	B	700	75.764	58.238	53.352	1.00	26.07
ATOM	11453	CG	TYR	B	700	74.997	59.418	53.933	1.00	24.42
ATOM	11454	CD1	TYR	B	700	75.240	59.934	55.215	1.00	23.88
ATOM	11455	CD2	TYR	B	700	74.114	60.085	53.138	1.00	20.95
ATOM	11456	CE1	TYR	B	700	74.579	61.067	55.649	1.00	21.97
ATOM	11457	CE2	TYR	B	700	73.453	61.175	53.560	1.00	22.57
ATOM	11458	CZ	TYR	B	700	73.685	61.683	54.807	1.00	24.01
ATOM	11459	OH	TYR	B	700	72.979	62.799	55.149	1.00	24.24
ATOM	11460	N	LEU	B	701	74.078	56.390	55.594	1.00	23.78
ATOM	11461	CA	LEU	B	701	72.740	56.002	55.958	1.00	23.60
ATOM	11462	C	LEU	B	701	72.050	57.268	56.454	1.00	23.98
ATOM	11463	O	LEU	B	701	72.565	57.992	57.353	1.00	23.64
ATOM	11464	CB	LEU	B	701	72.732	54.920	57.007	1.00	23.26
ATOM	11465	CG	LEU	B	701	71.381	54.467	57.569	1.00	24.75
ATOM	11466	CD1	LEU	B	701	70.344	54.071	56.500	1.00	26.22

ATOM	11467	CD2	LEU	B	701	71.595	53.318	58.502	1.00 22.99
ATOM	11468	N	LEU	B	702	70.912	57.536	55.820	1.00 23.77
ATOM	11469	CA	LEU	B	702	70.125	58.717	56.064	1.00 23.66
ATOM	11470	C	LEU	B	702	68.759	58.265	56.525	1.00 22.87
ATOM	11471	O	LEU	B	702	68.089	57.440	55.863	1.00 22.89
ATOM	11472	CB	LEU	B	702	70.068	59.512	54.769	1.00 23.91
ATOM	11473	CG	LEU	B	702	69.135	60.686	54.696	1.00 23.94
ATOM	11474	CD1	LEU	B	702	69.731	61.768	55.572	1.00 26.82
ATOM	11475	CD2	LEU	B	702	69.079	61.125	53.298	1.00 25.37
ATOM	11476	N	ILE	B	703	68.356	58.761	57.680	1.00 22.92
ATOM	11477	CA	ILE	B	703	67.108	58.346	58.299	1.00 23.25
ATOM	11478	C	ILE	B	703	66.308	59.532	58.745	1.00 23.23
ATOM	11479	O	ILE	B	703	66.868	60.463	59.318	1.00 23.16
ATOM	11480	CB	ILE	B	703	67.375	57.497	59.513	1.00 24.17
ATOM	11481	CG1	ILE	B	703	68.285	56.354	59.156	1.00 25.71
ATOM	11482	CG2	ILE	B	703	66.057	56.981	60.096	1.00 23.96
ATOM	11483	CD1	ILE	B	703	68.895	55.693	60.368	1.00 27.51
ATOM	11484	N	HIS	B	704	64.989	59.498	58.510	1.00 22.56
ATOM	11485	CA	HIS	B	704	64.120	60.615	58.931	1.00 21.90
ATOM	11486	C	HIS	B	704	62.684	60.148	59.135	1.00 21.79
ATOM	11487	O	HIS	B	704	62.214	59.265	58.411	1.00 23.20
ATOM	11488	CB	HIS	B	704	64.173	61.714	57.891	1.00 20.48
ATOM	11489	CG	HIS	B	704	64.148	63.084	58.455	1.00 20.84
ATOM	11490	ND1	HIS	B	704	65.091	64.034	58.125	1.00 22.71
ATOM	11491	CD2	HIS	B	704	63.285	63.687	59.309	1.00 19.35
ATOM	11492	CE1	HIS	B	704	64.812	65.163	58.766	1.00 22.05
ATOM	11493	NE2	HIS	B	704	63.738	64.969	59.513	1.00 17.00
ATOM	11494	N	GLY	B	705	61.992	60.719	60.115	1.00 21.89
ATOM	11495	CA	GLY	B	705	60.612	60.378	60.420	1.00 21.24
ATOM	11496	C	GLY	B	705	59.716	61.273	59.587	1.00 22.48
ATOM	11497	O	GLY	B	705	60.002	62.462	59.447	1.00 22.15
ATOM	11498	N	THR	B	706	58.628	60.740	59.020	1.00 22.26
ATOM	11499	CA	THR	B	706	57.878	61.557	58.086	1.00 22.34
ATOM	11500	C	THR	B	706	56.952	62.542	58.755	1.00 21.18
ATOM	11501	O	THR	B	706	56.578	63.486	58.121	1.00 20.70
ATOM	11502	CB	THR	B	706	57.077	60.724	57.052	1.00 22.35
ATOM	11503	OG1	THR	B	706	56.131	59.951	57.740	1.00 20.72
ATOM	11504	CG2	THR	B	706	57.913	59.659	56.425	1.00 24.38
ATOM	11505	N	ALA	B	707	56.622	62.369	60.022	1.00 21.54
ATOM	11506	CA	ALA	B	707	55.778	63.352	60.713	1.00 22.57
ATOM	11507	C	ALA	B	707	56.614	64.271	61.623	1.00 23.06
ATOM	11508	O	ALA	B	707	56.133	64.673	62.665	1.00 23.66
ATOM	11509	CB	ALA	B	707	54.675	62.642	61.583	1.00 22.37
ATOM	11510	N	ASP	B	708	57.850	64.573	61.232	1.00 23.56
ATOM	11511	CA	ASP	B	708	58.731	65.467	61.996	1.00 23.27
ATOM	11512	C	ASP	B	708	58.293	66.920	61.844	1.00 22.78
ATOM	11513	O	ASP	B	708	58.520	67.556	60.809	1.00 22.16
ATOM	11514	CB	ASP	B	708	60.165	65.284	61.523	1.00 23.23
ATOM	11515	CG	ASP	B	708	61.218	65.711	62.566	1.00 23.33
ATOM	11516	OD1	ASP	B	708	60.975	66.664	63.341	1.00 18.66
ATOM	11517	OD2	ASP	B	708	62.319	65.109	62.642	1.00 17.00
ATOM	11518	N	ASP	B	709	57.646	67.420	62.881	1.00 22.06
ATOM	11519	CA	ASP	B	709	57.170	68.793	62.954	1.00 22.26
ATOM	11520	C	ASP	B	709	58.278	69.756	63.284	1.00 21.89
ATOM	11521	O	ASP	B	709	58.053	70.941	63.221	1.00 21.79
ATOM	11522	CB	ASP	B	709	56.140	68.959	64.097	1.00 21.75
ATOM	11523	CG	ASP	B	709	56.670	68.443	65.449	1.00 23.45
ATOM	11524	OD1	ASP	B	709	56.818	67.219	65.622	1.00 21.03
ATOM	11525	OD2	ASP	B	709	56.958	69.184	66.403	1.00 24.68
ATOM	11526	N	ASN	B	710	59.432	69.235	63.702	1.00 22.00
ATOM	11527	CA	ASN	B	710	60.568	70.042	64.178	1.00 21.88
ATOM	11528	C	ASN	B	710	61.607	70.273	63.084	1.00 20.54
ATOM	11529	O	ASN	B	710	61.738	71.383	62.555	1.00 20.05
ATOM	11530	CB	ASN	B	710	61.128	69.354	65.446	1.00 21.90
ATOM	11531	CG	ASN	B	710	62.126	70.223	66.259	1.00 24.00
ATOM	11532	OD1	ASN	B	710	62.401	69.902	67.439	1.00 30.50
ATOM	11533	ND2	ASN	B	710	62.686	71.259	65.656	1.00 20.43
ATOM	11534	N	VAL	B	711	62.377	69.244	62.775	1.00 20.79
ATOM	11535	CA	VAL	B	711	63.293	69.282	61.648	1.00 21.00
ATOM	11536	C	VAL	B	711	62.507	68.571	60.563	1.00 21.12

ATOM	11537	O	VAL	B	711	62.433	67.346	60.537	1.00	21.84
ATOM	11538	CB	VAL	B	711	64.593	68.498	61.927	1.00	21.08
ATOM	11539	CG1	VAL	B	711	65.469	68.390	60.671	1.00	22.87
ATOM	11540	CG2	VAL	B	711	65.347	69.124	63.093	1.00	24.03
ATOM	11541	N	HIS	B	712	61.924	69.335	59.655	1.00	21.51
ATOM	11542	CA	HIS	B	712	60.994	68.751	58.695	1.00	22.37
ATOM	11543	C	HIS	B	712	61.604	67.679	57.802	1.00	22.30
ATOM	11544	O	HIS	B	712	62.793	67.747	57.456	1.00	23.20
ATOM	11545	CB	HIS	B	712	60.320	69.899	57.919	1.00	22.00
ATOM	11546	CG	HIS	B	712	59.629	70.855	58.827	1.00	22.77
ATOM	11547	ND1	HIS	B	712	59.533	72.206	58.579	1.00	24.42
ATOM	11548	CD2	HIS	B	712	59.053	70.651	60.036	1.00	22.52
ATOM	11549	CE1	HIS	B	712	58.909	72.791	59.584	1.00	25.18
ATOM	11550	NE2	HIS	B	712	58.583	71.865	60.472	1.00	24.45
ATOM	11551	N	PHE	B	713	60.802	66.690	57.421	1.00	21.85
ATOM	11552	CA	PHE	B	713	61.291	65.610	56.547	1.00	21.49
ATOM	11553	C	PHE	B	713	61.848	66.203	55.254	1.00	22.74
ATOM	11554	O	PHE	B	713	62.771	65.650	54.660	1.00	22.10
ATOM	11555	CB	PHE	B	713	60.148	64.644	56.225	1.00	22.82
ATOM	11556	CG	PHE	B	713	60.535	63.528	55.349	1.00	20.27
ATOM	11557	CD1	PHE	B	713	61.023	62.357	55.888	1.00	20.13
ATOM	11558	CD2	PHE	B	713	60.449	63.658	53.967	1.00	25.42
ATOM	11559	CE1	PHE	B	713	61.407	61.317	55.077	1.00	23.04
ATOM	11560	CE2	PHE	B	713	60.838	62.602	53.132	1.00	25.22
ATOM	11561	CZ	PHE	B	713	61.323	61.431	53.704	1.00	24.08
ATOM	11562	N	GLN	B	714	61.259	67.322	54.817	1.00	22.17
ATOM	11563	CA	GLN	B	714	61.814	68.102	53.726	1.00	22.19
ATOM	11564	C	GLN	B	714	63.327	68.117	53.726	1.00	22.48
ATOM	11565	O	GLN	B	714	63.965	67.952	52.677	1.00	21.65
ATOM	11566	CB	GLN	B	714	61.342	69.560	53.875	1.00	22.19
ATOM	11567	CG	GLN	B	714	62.190	70.636	53.144	1.00	23.25
ATOM	11568	CD	GLN	B	714	61.742	72.058	53.493	1.00	23.78
ATOM	11569	OE1	GLN	B	714	61.589	72.367	54.663	1.00	24.99
ATOM	11570	NE2	GLN	B	714	61.585	72.926	52.491	1.00	24.29
ATOM	11571	N	GLN	B	715	63.899	68.307	54.919	1.00	21.92
ATOM	11572	CA	GLN	B	715	65.307	68.551	55.037	1.00	21.53
ATOM	11573	C	GLN	B	715	66.092	67.407	54.451	1.00	21.26
ATOM	11574	O	GLN	B	715	67.033	67.631	53.710	1.00	21.16
ATOM	11575	CB	GLN	B	715	65.715	68.855	56.500	1.00	21.69
ATOM	11576	CG	GLN	B	715	65.009	70.103	57.110	1.00	22.09
ATOM	11577	CD	GLN	B	715	65.926	71.119	57.862	1.00	19.03
ATOM	11578	OE1	GLN	B	715	65.515	71.748	58.868	1.00	23.44
ATOM	11579	NE2	GLN	B	715	67.094	71.293	57.379	1.00	16.51
ATOM	11580	N	SER	B	716	65.733	66.182	54.821	1.00	22.18
ATOM	11581	CA	SER	B	716	66.418	65.010	54.317	1.00	22.37
ATOM	11582	C	SER	B	716	65.971	64.742	52.868	1.00	23.64
ATOM	11583	O	SER	B	716	66.707	64.131	52.080	1.00	24.04
ATOM	11584	CB	SER	B	716	66.092	63.783	55.147	1.00	22.45
ATOM	11585	OG	SER	B	716	66.807	63.738	56.376	1.00	20.69
ATOM	11586	N	ALA	B	717	64.771	65.188	52.523	1.00	22.98
ATOM	11587	CA	ALA	B	717	64.281	64.913	51.188	1.00	24.31
ATOM	11588	C	ALA	B	717	65.196	65.644	50.212	1.00	23.91
ATOM	11589	O	ALA	B	717	65.492	65.147	49.172	1.00	24.21
ATOM	11590	CB	ALA	B	717	62.834	65.365	51.004	1.00	23.00
ATOM	11591	N	GLN	B	718	65.609	66.843	50.576	1.00	24.92
ATOM	11592	CA	GLN	B	718	66.521	67.596	49.741	1.00	25.91
ATOM	11593	C	GLN	B	718	67.924	66.982	49.769	1.00	25.69
ATOM	11594	O	GLN	B	718	68.618	67.111	48.814	1.00	26.05
ATOM	11595	CB	GLN	B	718	66.516	69.059	50.134	1.00	25.77
ATOM	11596	CG	GLN	B	718	65.141	69.747	49.884	1.00	28.26
ATOM	11597	CD	GLN	B	718	64.906	70.071	48.413	1.00	28.48
ATOM	11598	OE1	GLN	B	718	65.645	69.614	47.565	1.00	30.00
ATOM	11599	NE2	GLN	B	718	63.916	70.886	48.127	1.00	29.10
ATOM	11600	N	ILE	B	719	68.343	66.320	50.844	1.00	25.52
ATOM	11601	CA	ILE	B	719	69.634	65.647	50.809	1.00	25.65
ATOM	11602	C	ILE	B	719	69.630	64.487	49.777	1.00	25.82
ATOM	11603	O	ILE	B	719	70.555	64.345	48.957	1.00	25.97
ATOM	11604	CB	ILE	B	719	70.022	65.082	52.172	1.00	25.32
ATOM	11605	CG1	ILE	B	719	70.333	66.183	53.160	1.00	25.43
ATOM	11606	CG2	ILE	B	719	71.289	64.246	52.025	1.00	25.41

ATOM	11607	CD1	ILE	B	719	70.485	65.688	54.569	1.00	22.72
ATOM	11608	N	SER	B	720	68.615	63.632	49.831	1.00	25.27
ATOM	11609	CA	SER	B	720	68.550	62.505	48.886	1.00	24.93
ATOM	11610	C	SER	B	720	68.476	62.969	47.430	1.00	25.54
ATOM	11611	O	SER	B	720	69.115	62.383	46.568	1.00	24.83
ATOM	11612	CB	SER	B	720	67.363	61.583	49.220	1.00	25.30
ATOM	11613	OG	SER	B	720	66.126	62.268	49.085	1.00	22.78
ATOM	11614	N	LYS	B	721	67.722	64.042	47.177	1.00	26.85
ATOM	11615	CA	LYS	B	721	67.559	64.596	45.848	1.00	27.84
ATOM	11616	C	LYS	B	721	68.939	65.015	45.340	1.00	28.04
ATOM	11617	O	LYS	B	721	69.278	64.750	44.207	1.00	26.90
ATOM	11618	CB	LYS	B	721	66.580	65.809	45.846	1.00	29.05
ATOM	11619	CG	LYS	B	721	66.109	66.372	44.416	1.00	31.60
ATOM	11620	CD	LYS	B	721	65.107	67.681	44.415	1.00	35.20
ATOM	11621	CE	LYS	B	721	64.834	68.185	42.881	1.00	39.27
ATOM	11622	NZ	LYS	B	721	64.418	69.677	42.463	1.00	33.78
ATOM	11623	N	ALA	B	722	69.757	65.632	46.191	1.00	28.55
ATOM	11624	CA	ALA	B	722	71.034	66.136	45.715	1.00	27.85
ATOM	11625	C	ALA	B	722	71.948	64.993	45.455	1.00	27.50
ATOM	11626	O	ALA	B	722	72.633	64.981	44.439	1.00	29.51
ATOM	11627	CB	ALA	B	722	71.642	67.131	46.682	1.00	27.80
ATOM	11628	N	LEU	B	723	71.953	64.008	46.334	1.00	26.95
ATOM	11629	CA	LEU	B	723	72.780	62.851	46.130	1.00	26.84
ATOM	11630	C	LEU	B	723	72.343	62.168	44.830	1.00	28.27
ATOM	11631	O	LEU	B	723	73.156	61.687	44.071	1.00	28.67
ATOM	11632	CB	LEU	B	723	72.695	61.897	47.327	1.00	27.02
ATOM	11633	CG	LEU	B	723	73.238	62.436	48.685	1.00	28.19
ATOM	11634	CD1	LEU	B	723	72.926	61.499	49.870	1.00	27.76
ATOM	11635	CD2	LEU	B	723	74.722	62.713	48.607	1.00	26.33
ATOM	11636	N	VAL	B	724	71.049	62.114	44.569	1.00	29.67
ATOM	11637	CA	VAL	B	724	70.570	61.507	43.334	1.00	30.31
ATOM	11638	C	VAL	B	724	71.007	62.366	42.129	1.00	30.78
ATOM	11639	O	VAL	B	724	71.481	61.826	41.151	1.00	29.49
ATOM	11640	CB	VAL	B	724	69.028	61.285	43.353	1.00	29.84
ATOM	11641	CG1	VAL	B	724	68.515	60.949	41.936	1.00	28.94
ATOM	11642	CG2	VAL	B	724	68.653	60.141	44.369	1.00	27.98
ATOM	11643	N	ASP	B	725	70.861	63.692	42.196	1.00	31.74
ATOM	11644	CA	ASP	B	725	71.261	64.520	41.053	1.00	33.00
ATOM	11645	C	ASP	B	725	72.725	64.245	40.652	1.00	33.14
ATOM	11646	O	ASP	B	725	73.100	64.358	39.488	1.00	33.52
ATOM	11647	CB	ASP	B	725	71.107	66.035	41.327	1.00	33.88
ATOM	11648	CG	ASP	B	725	69.630	66.495	41.493	1.00	36.92
ATOM	11649	OD1	ASP	B	725	68.679	65.847	40.967	1.00	36.79
ATOM	11650	OD2	ASP	B	725	69.338	67.524	42.156	1.00	41.86
ATOM	11651	N	VAL	B	726	73.543	63.832	41.610	1.00	32.56
ATOM	11652	CA	VAL	B	726	74.948	63.621	41.354	1.00	32.51
ATOM	11653	C	VAL	B	726	75.397	62.154	41.186	1.00	31.29
ATOM	11654	O	VAL	B	726	76.592	61.875	41.065	1.00	29.89
ATOM	11655	CB	VAL	B	726	75.709	64.370	42.493	1.00	33.37
ATOM	11656	CG1	VAL	B	726	76.678	63.529	43.189	1.00	34.52
ATOM	11657	CG2	VAL	B	726	76.328	65.596	41.953	1.00	35.51
ATOM	11658	N	GLY	B	727	74.465	61.208	41.153	1.00	29.96
ATOM	11659	CA	GLY	B	727	74.844	59.805	40.982	1.00	29.57
ATOM	11660	C	GLY	B	727	75.622	59.125	42.115	1.00	29.81
ATOM	11661	O	GLY	B	727	76.456	58.239	41.881	1.00	29.75
ATOM	11662	N	VAL	B	728	75.343	59.504	43.358	1.00	29.64
ATOM	11663	CA	VAL	B	728	75.964	58.889	44.526	1.00	29.43
ATOM	11664	C	VAL	B	728	75.019	57.918	45.186	1.00	29.95
ATOM	11665	O	VAL	B	728	73.850	58.238	45.466	1.00	29.36
ATOM	11666	CB	VAL	B	728	76.286	59.943	45.591	1.00	29.54
ATOM	11667	CG1	VAL	B	728	76.716	59.313	46.853	1.00	29.43
ATOM	11668	CG2	VAL	B	728	77.369	60.889	45.092	1.00	33.38
ATOM	11669	N	ASP	B	729	75.525	56.740	45.464	1.00	29.47
ATOM	11670	CA	ASP	B	729	74.742	55.769	46.124	1.00	30.28
ATOM	11671	C	ASP	B	729	74.880	55.871	47.661	1.00	29.90
ATOM	11672	O	ASP	B	729	75.933	56.207	48.225	1.00	29.99
ATOM	11673	CB	ASP	B	729	75.077	54.373	45.594	1.00	30.38
ATOM	11674	CG	ASP	B	729	74.072	53.317	46.058	1.00	30.43
ATOM	11675	OD1	ASP	B	729	72.852	53.554	45.946	1.00	30.84
ATOM	11676	OD2	ASP	B	729	74.410	52.231	46.552	1.00	32.04

ATOM	11677	N	PHE	B	730	73.770	55.603	48.328	1.00 29.05
ATOM	11678	CA	PHE	B	730	73.667	55.756	49.761	1.00 28.20
ATOM	11679	C	PHE	B	730	72.502	54.900	50.194	1.00 28.15
ATOM	11680	O	PHE	B	730	71.750	54.418	49.346	1.00 27.29
ATOM	11681	CB	PHE	B	730	73.443	57.234	50.115	1.00 27.96
ATOM	11682	CG	PHE	B	730	72.176	57.823	49.561	1.00 29.42
ATOM	11683	CD1	PHE	B	730	72.127	58.314	48.280	1.00 30.54
ATOM	11684	CD2	PHE	B	730	71.033	57.899	50.342	1.00 33.30
ATOM	11685	CE1	PHE	B	730	70.953	58.860	47.749	1.00 32.34
ATOM	11686	CE2	PHE	B	730	69.851	58.448	49.834	1.00 33.34
ATOM	11687	CZ	PHE	B	730	69.818	58.931	48.532	1.00 33.29
ATOM	11688	N	GLN	B	731	72.352	54.706	51.498	1.00 28.88
ATOM	11689	CA	GLN	B	731	71.275	53.904	52.066	1.00 29.87
ATOM	11690	C	GLN	B	731	70.330	54.840	52.761	1.00 29.70
ATOM	11691	O	GLN	B	731	70.748	55.886	53.318	1.00 29.43
ATOM	11692	CB	GLN	B	731	71.785	52.923	53.115	1.00 31.26
ATOM	11693	CG	GLN	B	731	73.154	52.361	52.838	1.00 35.94
ATOM	11694	CD	GLN	B	731	73.103	50.988	52.257	1.00 42.08
ATOM	11695	OE1	GLN	B	731	72.304	50.713	51.336	1.00 42.62
ATOM	11696	NE2	GLN	B	731	73.959	50.091	52.793	1.00 44.08
ATOM	11697	N	ALA	B	732	69.067	54.439	52.801	1.00 29.28
ATOM	11698	CA	ALA	B	732	68.023	55.293	53.361	1.00 29.21
ATOM	11699	C	ALA	B	732	66.951	54.520	54.129	1.00 29.27
ATOM	11700	O	ALA	B	732	66.761	53.313	53.925	1.00 29.99
ATOM	11701	CB	ALA	B	732	67.375	56.145	52.274	1.00 28.18
ATOM	11702	N	MET	B	733	66.303	55.245	55.035	1.00 28.87
ATOM	11703	CA	MET	B	733	65.145	54.760	55.769	1.00 28.98
ATOM	11704	C	MET	B	733	64.260	55.891	56.248	1.00 27.35
ATOM	11705	O	MET	B	733	64.706	56.747	57.047	1.00 24.40
ATOM	11706	CB	MET	B	733	65.570	54.042	57.018	1.00 29.60
ATOM	11707	CG	MET	B	733	65.317	52.628	56.979	1.00 35.13
ATOM	11708	SD	MET	B	733	63.595	52.220	56.963	1.00 36.43
ATOM	11709	CE	MET	B	733	63.819	50.655	56.702	1.00 38.49
ATOM	11710	N	TRP	B	734	63.006	55.881	55.802	1.00 25.36
ATOM	11711	CA	TRP	B	734	62.025	56.798	56.369	1.00 24.63
ATOM	11712	C	TRP	B	734	61.279	56.066	57.480	1.00 23.31
ATOM	11713	O	TRP	B	734	61.258	54.858	57.475	1.00 21.83
ATOM	11714	CB	TRP	B	734	61.059	57.308	55.302	1.00 24.60
ATOM	11715	CG	TRP	B	734	60.014	56.283	54.885	1.00 25.26
ATOM	11716	CD1	TRP	B	734	58.862	55.980	55.548	1.00 25.43
ATOM	11717	CD2	TRP	B	734	60.044	55.451	53.732	1.00 24.00
ATOM	11718	NE1	TRP	B	734	58.155	55.014	54.867	1.00 26.11
ATOM	11719	CE2	TRP	B	734	58.861	54.666	53.745	1.00 25.69
ATOM	11720	CE3	TRP	B	734	60.937	55.298	52.671	1.00 26.17
ATOM	11721	CZ2	TRP	B	734	58.567	53.718	52.762	1.00 22.58
ATOM	11722	CZ3	TRP	B	734	60.641	54.373	51.670	1.00 26.40
ATOM	11723	CH2	TRP	B	734	59.459	53.597	51.725	1.00 27.21
ATOM	11724	N	TYR	B	735	60.727	56.795	58.464	1.00 23.19
ATOM	11725	CA	TYR	B	735	59.876	56.163	59.519	1.00 22.65
ATOM	11726	C	TYR	B	735	58.507	56.813	59.510	1.00 21.88
ATOM	11727	O	TYR	B	735	58.306	57.948	59.953	1.00 19.78
ATOM	11728	CB	TYR	B	735	60.472	56.186	60.909	1.00 22.20
ATOM	11729	CG	TYR	B	735	61.503	55.148	61.079	1.00 21.04
ATOM	11730	CD1	TYR	B	735	61.145	53.851	61.385	1.00 22.90
ATOM	11731	CD2	TYR	B	735	62.821	55.419	60.816	1.00 22.29
ATOM	11732	CE1	TYR	B	735	62.070	52.859	61.472	1.00 22.47
ATOM	11733	CE2	TYR	B	735	63.789	54.421	60.900	1.00 23.07
ATOM	11734	CZ	TYR	B	735	63.406	53.142	61.222	1.00 22.45
ATOM	11735	OH	TYR	B	735	64.365	52.155	61.340	1.00 20.77
ATOM	11736	N	THR	B	736	57.578	56.044	58.983	1.00 21.77
ATOM	11737	CA	THR	B	736	56.226	56.496	58.788	1.00 22.82
ATOM	11738	C	THR	B	736	55.607	57.007	60.057	1.00 22.70
ATOM	11739	O	THR	B	736	55.587	56.294	61.042	1.00 22.68
ATOM	11740	CB	THR	B	736	55.368	55.322	58.241	1.00 23.25
ATOM	11741	OG1	THR	B	736	55.776	55.010	56.905	1.00 22.43
ATOM	11742	CG2	THR	B	736	53.894	55.727	58.053	1.00 23.21
ATOM	11743	N	ASP	B	737	55.118	58.250	60.005	1.00 22.73
ATOM	11744	CA	ASP	B	737	54.381	58.891	61.080	1.00 23.45
ATOM	11745	C	ASP	B	737	55.175	59.113	62.351	1.00 23.50
ATOM	11746	O	ASP	B	737	54.566	59.442	63.404	1.00 22.54

ATOM	11747	CB	ASP	B	737	53.109	58.086	61.456	1.00 23.34
ATOM	11748	CG	ASP	B	737	52.015	58.161	60.388	1.00 25.87
ATOM	11749	OD1	ASP	B	737	52.066	59.048	59.485	1.00 21.91
ATOM	11750	OD2	ASP	B	737	51.008	57.404	60.432	1.00 27.05
ATOM	11751	N	GLU	B	738	56.492	58.933	62.279	1.00 22.71
ATOM	11752	CA	GLU	B	738	57.325	59.187	63.444	1.00 23.28
ATOM	11753	C	GLU	B	738	57.791	60.625	63.430	1.00 22.93
ATOM	11754	O	GLU	B	738	57.944	61.229	62.352	1.00 21.96
ATOM	11755	CB	GLU	B	738	58.519	58.243	63.512	1.00 23.38
ATOM	11756	CG	GLU	B	738	58.146	56.794	63.843	1.00 25.58
ATOM	11757	CD	GLU	B	738	57.587	56.626	65.263	1.00 29.05
ATOM	11758	OE1	GLU	B	738	58.195	57.140	66.255	1.00 27.71
ATOM	11759	OE2	GLU	B	738	56.522	55.986	65.394	1.00 33.08
ATOM	11760	N	ASP	B	739	58.000	61.181	64.625	1.00 22.43
ATOM	11761	CA	ASP	B	739	58.505	62.562	64.722	1.00 23.17
ATOM	11762	C	ASP	B	739	60.036	62.685	64.963	1.00 22.55
ATOM	11763	O	ASP	B	739	60.756	61.738	64.656	1.00 24.43
ATOM	11764	CB	ASP	B	739	57.659	63.364	65.715	1.00 21.61
ATOM	11765	CG	ASP	B	739	57.844	62.961	67.117	1.00 20.29
ATOM	11766	OD1	ASP	B	739	58.765	62.204	67.507	1.00 20.22
ATOM	11767	OD2	ASP	B	739	57.033	63.378	67.957	1.00 21.30
ATOM	11768	N	HIS	B	740	60.521	63.838	65.428	1.00 22.13
ATOM	11769	CA	HIS	B	740	61.938	64.043	65.752	1.00 22.65
ATOM	11770	C	HIS	B	740	62.535	63.036	66.723	1.00 23.57
ATOM	11771	O	HIS	B	740	63.739	62.760	66.661	1.00 24.38
ATOM	11772	CB	HIS	B	740	62.219	65.451	66.306	1.00 22.48
ATOM	11773	CG	HIS	B	740	63.588	65.974	65.975	1.00 21.69
ATOM	11774	ND1	HIS	B	740	64.131	65.894	64.711	1.00 24.01
ATOM	11775	CD2	HIS	B	740	64.504	66.632	66.738	1.00 21.78
ATOM	11776	CE1	HIS	B	740	65.356	66.408	64.730	1.00 23.93
ATOM	11777	NE2	HIS	B	740	65.594	66.884	65.946	1.00 21.27
ATOM	11778	N	GLY	B	741	61.745	62.477	67.629	1.00 24.04
ATOM	11779	CA	GLY	B	741	62.324	61.524	68.557	1.00 24.01
ATOM	11780	C	GLY	B	741	62.381	60.115	68.020	1.00 23.93
ATOM	11781	O	GLY	B	741	63.160	59.294	68.501	1.00 24.35
ATOM	11782	N	ILE	B	742	61.616	59.840	66.975	1.00 24.05
ATOM	11783	CA	ILE	B	742	61.440	58.455	66.513	1.00 24.15
ATOM	11784	C	ILE	B	742	61.389	57.569	67.742	1.00 24.36
ATOM	11785	O	ILE	B	742	62.127	56.591	67.829	1.00 24.69
ATOM	11786	CB	ILE	B	742	62.558	57.934	65.565	1.00 24.15
ATOM	11787	CG1	ILE	B	742	62.716	58.966	64.413	1.00 24.88
ATOM	11788	CG2	ILE	B	742	62.244	56.614	64.979	1.00 22.95
ATOM	11789	CD1	ILE	B	742	63.908	58.768	63.510	1.00 25.20
ATOM	11790	N	ALA	B	743	60.512	57.915	68.677	1.00 24.91
ATOM	11791	CA	ALA	B	743	60.485	57.274	70.001	1.00 26.61
ATOM	11792	C	ALA	B	743	59.398	56.284	70.291	1.00 27.02
ATOM	11793	O	ALA	B	743	59.448	55.645	71.345	1.00 27.69
ATOM	11794	CB	ALA	B	743	60.500	58.327	71.115	1.00 27.01
ATOM	11795	N	SER	B	744	58.441	56.084	69.393	1.00 26.67
ATOM	11796	CA	SER	B	744	57.478	55.042	69.692	1.00 27.68
ATOM	11797	C	SER	B	744	58.303	53.793	69.935	1.00 28.02
ATOM	11798	O	SER	B	744	59.344	53.594	69.336	1.00 26.35
ATOM	11799	CB	SER	B	744	56.464	54.810	68.563	1.00 26.67
ATOM	11800	OG	SER	B	744	57.078	54.249	67.405	1.00 31.26
ATOM	11801	N	SER	B	745	57.784	52.919	70.771	1.00 28.75
ATOM	11802	CA	SER	B	745	58.516	51.748	71.161	1.00 30.40
ATOM	11803	C	SER	B	745	59.004	50.887	69.974	1.00 29.85
ATOM	11804	O	SER	B	745	60.137	50.424	69.986	1.00 29.98
ATOM	11805	CB	SER	B	745	57.677	50.909	72.112	1.00 30.34
ATOM	11806	OG	SER	B	745	58.337	49.672	72.256	1.00 34.56
ATOM	11807	N	THR	B	746	58.182	50.675	68.946	1.00 29.65
ATOM	11808	CA	THR	B	746	58.630	49.790	67.847	1.00 28.90
ATOM	11809	C	THR	B	746	59.582	50.487	66.901	1.00 27.78
ATOM	11810	O	THR	B	746	60.524	49.895	66.385	1.00 27.10
ATOM	11811	CB	THR	B	746	57.451	49.234	67.068	1.00 29.68
ATOM	11812	OG1	THR	B	746	56.540	50.295	66.707	1.00 27.85
ATOM	11813	CG2	THR	B	746	56.651	48.232	67.942	1.00 30.75
ATOM	11814	N	ALA	B	747	59.364	51.760	66.645	1.00 27.53
ATOM	11815	CA	ALA	B	747	60.298	52.413	65.734	1.00 27.18
ATOM	11816	C	ALA	B	747	61.675	52.509	66.400	1.00 26.49

ATOM	11817	O	ALA	B	747	62.724	52.320	65.745	1.00	24.33
ATOM	11818	CB	ALA	B	747	59.797	53.754	65.327	1.00	27.22
ATOM	11819	N	HIS	B	748	61.673	52.753	67.716	1.00	26.90
ATOM	11820	CA	HIS	B	748	62.934	52.897	68.463	1.00	26.24
ATOM	11821	C	HIS	B	748	63.734	51.610	68.350	1.00	27.05
ATOM	11822	O	HIS	B	748	64.953	51.637	68.076	1.00	25.75
ATOM	11823	CB	HIS	B	748	62.669	53.226	69.931	1.00	27.44
ATOM	11824	CG	HIS	B	748	63.885	53.220	70.794	1.00	24.61
ATOM	11825	ND1	HIS	B	748	64.797	54.244	70.785	1.00	26.51
ATOM	11826	CD2	HIS	B	748	64.321	52.338	71.725	1.00	27.73
ATOM	11827	CE1	HIS	B	748	65.763	53.987	71.657	1.00	26.61
ATOM	11828	NE2	HIS	B	748	65.498	52.836	72.241	1.00	25.81
ATOM	11829	N	GLN	B	749	63.059	50.470	68.510	1.00	27.15
ATOM	11830	CA	GLN	B	749	63.789	49.190	68.399	1.00	28.01
ATOM	11831	C	GLN	B	749	64.280	48.984	66.968	1.00	27.20
ATOM	11832	O	GLN	B	749	65.369	48.472	66.678	1.00	26.40
ATOM	11833	CB	GLN	B	749	62.896	48.020	68.842	1.00	28.88
ATOM	11834	CG	GLN	B	749	62.459	48.107	70.298	1.00	30.75
ATOM	11835	CD	GLN	B	749	61.433	47.043	70.712	1.00	35.63
ATOM	11836	OE1	GLN	B	749	61.787	45.894	70.922	1.00	41.39
ATOM	11837	NE2	GLN	B	749	60.184	47.440	70.862	1.00	37.11
ATOM	11838	N	HIS	B	750	63.443	49.404	66.055	1.00	27.01
ATOM	11839	CA	HIS	B	750	63.721	49.167	64.681	1.00	27.01
ATOM	11840	C	HIS	B	750	64.890	50.052	64.227	1.00	25.80
ATOM	11841	O	HIS	B	750	65.794	49.546	63.602	1.00	25.66
ATOM	11842	CB	HIS	B	750	62.441	49.327	63.860	1.00	27.22
ATOM	11843	CG	HIS	B	750	62.555	48.845	62.451	1.00	28.98
ATOM	11844	ND1	HIS	B	750	61.614	48.022	61.876	1.00	34.83
ATOM	11845	CD2	HIS	B	750	63.489	49.055	61.506	1.00	28.49
ATOM	11846	CE1	HIS	B	750	61.968	47.748	60.635	1.00	31.78
ATOM	11847	NE2	HIS	B	750	63.099	48.366	60.383	1.00	27.98
ATOM	11848	N	ILE	B	751	64.915	51.331	64.584	1.00	24.75
ATOM	11849	CA	ILE	B	751	65.981	52.202	64.090	1.00	24.56
ATOM	11850	C	ILE	B	751	67.350	51.745	64.630	1.00	24.17
ATOM	11851	O	ILE	B	751	68.305	51.572	63.858	1.00	23.48
ATOM	11852	CB	ILE	B	751	65.711	53.688	64.305	1.00	23.55
ATOM	11853	CG1	ILE	B	751	66.729	54.493	63.524	1.00	25.42
ATOM	11854	CG2	ILE	B	751	65.814	54.070	65.770	1.00	26.58
ATOM	11855	CD1	ILE	B	751	66.537	55.999	63.550	1.00	25.36
ATOM	11856	N	TYR	B	752	67.435	51.461	65.922	1.00	23.88
ATOM	11857	CA	TYR	B	752	68.716	51.006	66.471	1.00	23.89
ATOM	11858	C	TYR	B	752	69.152	49.642	65.939	1.00	24.36
ATOM	11859	O	TYR	B	752	70.356	49.341	65.864	1.00	24.86
ATOM	11860	CB	TYR	B	752	68.696	51.033	68.016	1.00	23.90
ATOM	11861	CG	TYR	B	752	68.908	52.438	68.505	1.00	23.39
ATOM	11862	CD1	TYR	B	752	70.202	52.985	68.564	1.00	21.30
ATOM	11863	CD2	TYR	B	752	67.820	53.256	68.841	1.00	21.53
ATOM	11864	CE1	TYR	B	752	70.406	54.301	69.001	1.00	19.82
ATOM	11865	CE2	TYR	B	752	68.023	54.584	69.216	1.00	22.84
ATOM	11866	CZ	TYR	B	752	69.322	55.069	69.328	1.00	22.05
ATOM	11867	OH	TYR	B	752	69.504	56.353	69.701	1.00	26.93
ATOM	11868	N	THR	B	753	68.190	48.823	65.545	1.00	24.72
ATOM	11869	CA	THR	B	753	68.499	47.540	64.949	1.00	25.04
ATOM	11870	C	THR	B	753	69.130	47.719	63.599	1.00	25.21
ATOM	11871	O	THR	B	753	70.055	46.986	63.227	1.00	25.42
ATOM	11872	CB	THR	B	753	67.254	46.686	64.821	1.00	25.19
ATOM	11873	OG1	THR	B	753	66.815	46.327	66.129	1.00	26.51
ATOM	11874	CG2	THR	B	753	67.552	45.322	64.189	1.00	26.77
ATOM	11875	N	HIS	B	754	68.591	48.676	62.859	1.00	25.43
ATOM	11876	CA	HIS	B	754	68.992	48.934	61.509	1.00	24.78
ATOM	11877	C	HIS	B	754	70.363	49.549	61.526	1.00	24.51
ATOM	11878	O	HIS	B	754	71.207	49.166	60.769	1.00	23.52
ATOM	11879	CB	HIS	B	754	68.031	49.899	60.832	1.00	24.32
ATOM	11880	CG	HIS	B	754	68.090	49.863	59.336	1.00	23.90
ATOM	11881	ND1	HIS	B	754	67.869	48.707	58.609	1.00	23.25
ATOM	11882	CD2	HIS	B	754	68.269	50.852	58.428	1.00	24.23
ATOM	11883	CE1	HIS	B	754	67.960	48.982	57.319	1.00	21.88
ATOM	11884	NE2	HIS	B	754	68.190	50.276	57.180	1.00	23.11
ATOM	11885	N	MET	B	755	70.577	50.512	62.407	1.00	25.06
ATOM	11886	CA	MET	B	755	71.887	51.163	62.511	1.00	24.45

ATOM	11887	C	MET	B	755	72.973	50.195	63.052	1.00 24.60
ATOM	11888	O	MET	B	755	74.151	50.335	62.717	1.00 22.03
ATOM	11889	CB	MET	B	755	71.789	52.381	63.426	1.00 24.41
ATOM	11890	CG	MET	B	755	70.852	53.499	62.924	1.00 24.99
ATOM	11891	SD	MET	B	755	71.094	55.090	63.747	1.00 28.21
ATOM	11892	CE	MET	B	755	70.546	54.690	65.314	1.00 29.16
ATOM	11893	N	SER	B	756	72.583	49.243	63.909	1.00 24.26
ATOM	11894	CA	SER	B	756	73.553	48.292	64.433	1.00 24.91
ATOM	11895	C	SER	B	756	74.000	47.471	63.221	1.00 26.55
ATOM	11896	O	SER	B	756	75.194	47.388	62.952	1.00 27.29
ATOM	11897	CB	SER	B	756	73.006	47.385	65.550	1.00 24.53
ATOM	11898	OG	SER	B	756	72.423	48.114	66.652	1.00 23.99
ATOM	11899	N	HIS	B	757	73.045	46.956	62.430	1.00 27.68
ATOM	11900	CA	HIS	B	757	73.434	46.220	61.197	1.00 28.64
ATOM	11901	C	HIS	B	757	74.393	47.051	60.329	1.00 28.24
ATOM	11902	O	HIS	B	757	75.466	46.568	59.873	1.00 28.92
ATOM	11903	CB	HIS	B	757	72.213	45.782	60.351	1.00 28.51
ATOM	11904	CG	HIS	B	757	71.382	44.709	60.993	1.00 30.88
ATOM	11905	ND1	HIS	B	757	71.936	43.626	61.646	1.00 37.16
ATOM	11906	CD2	HIS	B	757	70.037	44.550	61.083	1.00 31.61
ATOM	11907	CE1	HIS	B	757	70.966	42.849	62.109	1.00 35.73
ATOM	11908	NE2	HIS	B	757	69.806	43.388	61.784	1.00 31.22
ATOM	11909	N	PHE	B	758	74.017	48.286	60.065	1.00 26.88
ATOM	11910	CA	PHE	B	758	74.846	49.117	59.214	1.00 27.31
ATOM	11911	C	PHE	B	758	76.286	49.250	59.739	1.00 28.46
ATOM	11912	O	PHE	B	758	77.293	49.055	59.003	1.00 28.22
ATOM	11913	CB	PHE	B	758	74.221	50.499	59.123	1.00 27.19
ATOM	11914	CG	PHE	B	758	74.922	51.419	58.205	1.00 26.78
ATOM	11915	CD1	PHE	B	758	74.714	51.341	56.829	1.00 27.43
ATOM	11916	CD2	PHE	B	758	75.776	52.367	58.697	1.00 27.39
ATOM	11917	CE1	PHE	B	758	75.372	52.179	55.967	1.00 27.51
ATOM	11918	CE2	PHE	B	758	76.428	53.234	57.847	1.00 28.75
ATOM	11919	CZ	PHE	B	758	76.235	53.140	56.465	1.00 28.75
ATOM	11920	N	ILE	B	759	76.404	49.597	61.009	1.00 28.83
ATOM	11921	CA	ILE	B	759	77.723	49.762	61.582	1.00 30.09
ATOM	11922	C	ILE	B	759	78.505	48.449	61.646	1.00 30.59
ATOM	11923	O	ILE	B	759	79.684	48.447	61.372	1.00 30.39
ATOM	11924	CB	ILE	B	759	77.631	50.512	62.924	1.00 30.25
ATOM	11925	CG1	ILE	B	759	77.290	51.949	62.602	1.00 32.97
ATOM	11926	CG2	ILE	B	759	78.982	50.584	63.638	1.00 30.73
ATOM	11927	CD1	ILE	B	759	76.802	52.655	63.707	1.00 36.65
ATOM	11928	N	LYS	B	760	77.856	47.333	61.927	1.00 32.18
ATOM	11929	CA	LYS	B	760	78.582	46.073	62.000	1.00 34.39
ATOM	11930	C	LYS	B	760	79.181	45.764	60.636	1.00 35.25
ATOM	11931	O	LYS	B	760	80.369	45.391	60.507	1.00 35.22
ATOM	11932	CB	LYS	B	760	77.679	44.917	62.459	1.00 34.88
ATOM	11933	CG	LYS	B	760	77.221	44.989	63.895	1.00 36.76
ATOM	11934	CD	LYS	B	760	77.344	43.653	64.570	1.00 39.28
ATOM	11935	CE	LYS	B	760	76.063	42.919	64.666	1.00 42.26
ATOM	11936	NZ	LYS	B	760	76.310	41.567	65.259	1.00 45.49
ATOM	11937	N	GLN	B	761	78.377	45.970	59.604	1.00 35.65
ATOM	11938	CA	GLN	B	761	78.845	45.690	58.254	1.00 37.11
ATOM	11939	C	GLN	B	761	79.935	46.657	57.813	1.00 37.13
ATOM	11940	O	GLN	B	761	80.897	46.238	57.191	1.00 36.55
ATOM	11941	CB	GLN	B	761	77.687	45.622	57.237	1.00 37.51
ATOM	11942	CG	GLN	B	761	76.992	46.909	56.935	1.00 40.25
ATOM	11943	CD	GLN	B	761	77.690	47.748	55.884	1.00 46.19
ATOM	11944	OE1	GLN	B	761	78.493	47.228	55.088	1.00 48.05
ATOM	11945	NE2	GLN	B	761	77.396	49.061	55.880	1.00 47.46
ATOM	11946	N	CYS	B	762	79.810	47.934	58.161	1.00 37.50
ATOM	11947	CA	CYS	B	762	80.856	48.893	57.840	1.00 38.43
ATOM	11948	C	CYS	B	762	82.187	48.452	58.431	1.00 38.75
ATOM	11949	O	CYS	B	762	83.237	48.656	57.837	1.00 38.74
ATOM	11950	CB	CYS	B	762	80.510	50.249	58.433	1.00 38.71
ATOM	11951	SG	CYS	B	762	81.673	51.592	58.105	1.00 41.98
ATOM	11952	N	PHE	B	763	82.118	47.832	59.600	1.00 38.96
ATOM	11953	CA	PHE	B	763	83.287	47.495	60.381	1.00 39.41
ATOM	11954	C	PHE	B	763	83.680	46.005	60.240	1.00 40.32
ATOM	11955	O	PHE	B	763	84.482	45.487	61.015	1.00 39.92
ATOM	11956	CB	PHE	B	763	82.956	47.807	61.868	1.00 38.92

ATOM	11957	CG	PHE	B	763	83.038	49.273	62.249	1.00	35.95
ATOM	11958	CD1	PHE	B	763	83.606	50.211	61.423	1.00	34.28
ATOM	11959	CD2	PHE	B	763	82.584	49.692	63.488	1.00	36.76
ATOM	11960	CE1	PHE	B	763	83.702	51.517	61.819	1.00	33.55
ATOM	11961	CE2	PHE	B	763	82.673	51.020	63.878	1.00	33.00
ATOM	11962	CZ	PHE	B	763	83.227	51.917	63.061	1.00	32.46
ATOM	11963	N	SER	B	764	83.060	45.320	59.283	1.00	41.75
ATOM	11964	CA	SER	B	764	83.281	43.895	59.036	1.00	42.70
ATOM	11965	C	SER	B	764	83.192	43.024	60.284	1.00	44.33
ATOM	11966	O	SER	B	764	84.038	42.145	60.498	1.00	45.27
ATOM	11967	CB	SER	B	764	84.631	43.677	58.354	1.00	42.68
ATOM	11968	OG	SER	B	764	84.761	44.575	57.279	1.00	40.08
ATOM	11969	N	LEU	B	765	82.167	43.263	61.091	1.00	45.12
ATOM	11970	CA	LEU	B	765	81.891	42.461	62.264	1.00	46.20
ATOM	11971	C	LEU	B	765	80.703	41.527	61.982	1.00	47.52
ATOM	11972	O	LEU	B	765	79.635	42.000	61.626	1.00	47.72
ATOM	11973	CB	LEU	B	765	81.550	43.373	63.450	1.00	46.04
ATOM	11974	CG	LEU	B	765	82.688	44.265	63.995	1.00	46.16
ATOM	11975	CD1	LEU	B	765	82.184	45.259	64.996	1.00	46.29
ATOM	11976	CD2	LEU	B	765	83.787	43.424	64.619	1.00	46.53
ATOM	11977	N	PRO	B	766	80.873	40.212	62.143	1.00	48.72
ATOM	11978	CA	PRO	B	766	79.765	39.261	61.948	1.00	49.30
ATOM	11979	C	PRO	B	766	78.590	39.490	62.907	1.00	49.42
ATOM	11980	O	PRO	B	766	78.756	39.282	64.104	1.00	49.18
ATOM	11981	CB	PRO	B	766	80.407	37.899	62.243	1.00	49.19
ATOM	11982	CG	PRO	B	766	81.831	38.101	62.017	1.00	49.63
ATOM	11983	CD	PRO	B	766	82.124	39.517	62.486	1.00	49.18
TER	11984		PRO	B	766					
HETATM	11985	C1	NAG	B	793	33.999	64.461	78.683	1.00	57.99
HETATM	11986	C2	NAG	B	793	32.573	65.000	78.742	1.00	61.12
HETATM	11987	N2	NAG	B	793	32.577	66.287	79.402	1.00	61.79
HETATM	11988	C7	NAG	B	793	33.128	66.514	80.598	1.00	63.53
HETATM	11989	O7	NAG	B	793	33.450	67.654	80.963	1.00	65.37
HETATM	11990	C8	NAG	B	793	33.376	65.370	81.538	1.00	63.95
HETATM	11991	C3	NAG	B	793	31.628	63.988	79.397	1.00	63.28
HETATM	11992	O3	NAG	B	793	30.285	64.421	79.591	1.00	61.99
HETATM	11993	C4	NAG	B	793	31.723	62.749	78.530	1.00	63.91
HETATM	11994	O4	NAG	B	793	30.728	61.837	78.927	1.00	62.43
HETATM	11995	C5	NAG	B	793	33.122	62.160	78.732	1.00	64.92
HETATM	11996	C6	NAG	B	793	33.290	60.932	77.842	1.00	66.07
HETATM	11997	O6	NAG	B	793	34.269	61.217	76.867	1.00	66.84
HETATM	11998	O5	NAG	B	793	34.179	63.069	78.445	1.00	60.71
HETATM	11999	C1	NAG	B	794	55.667	62.444	110.980	1.00	34.19
HETATM	12000	C2	NAG	B	794	54.300	62.821	110.434	1.00	34.04
HETATM	12001	N2	NAG	B	794	54.500	63.199	109.054	1.00	32.45
HETATM	12002	C7	NAG	B	794	54.026	62.522	108.007	1.00	30.69
HETATM	12003	O7	NAG	B	794	53.459	61.412	108.025	1.00	29.04
HETATM	12004	C8	NAG	B	794	54.215	63.246	106.719	1.00	28.12
HETATM	12005	C3	NAG	B	794	53.760	64.012	111.199	1.00	35.55
HETATM	12006	O3	NAG	B	794	52.487	64.340	110.702	1.00	40.00
HETATM	12007	C4	NAG	B	794	53.648	63.653	112.679	1.00	36.40
HETATM	12008	O4	NAG	B	794	53.272	64.805	113.391	1.00	34.43
HETATM	12009	C5	NAG	B	794	55.010	63.195	113.177	1.00	32.95
HETATM	12010	C6	NAG	B	794	54.946	62.678	114.607	1.00	33.12
HETATM	12011	O6	NAG	B	794	53.967	61.672	114.764	1.00	28.48
HETATM	12012	O5	NAG	B	794	55.494	62.146	112.353	1.00	35.51
HETATM	12013	C1	NAG	B	796	46.134	89.074	64.573	1.00	37.06
HETATM	12014	C2	NAG	B	796	45.064	90.053	65.068	1.00	39.18
HETATM	12015	N2	NAG	B	796	44.194	89.535	66.099	1.00	38.69
HETATM	12016	C7	NAG	B	796	44.254	89.894	67.359	1.00	41.45
HETATM	12017	O7	NAG	B	796	45.136	90.611	67.793	1.00	45.89
HETATM	12018	C8	NAG	B	796	43.179	89.381	68.270	1.00	41.70
HETATM	12019	C3	NAG	B	796	44.162	90.454	63.915	1.00	40.21
HETATM	12020	O3	NAG	B	796	43.318	91.468	64.403	1.00	39.86
HETATM	12021	C4	NAG	B	796	44.987	90.975	62.748	1.00	43.50
HETATM	12022	O4	NAG	B	796	44.302	90.814	61.526	1.00	44.51
HETATM	12023	C5	NAG	B	796	46.322	90.248	62.597	1.00	43.28
HETATM	12024	C6	NAG	B	796	47.244	91.170	61.831	1.00	43.03
HETATM	12025	O6	NAG	B	796	47.617	90.355	60.756	1.00	44.68
HETATM	12026	O5	NAG	B	796	46.961	89.876	63.806	1.00	36.35

HETATM12027	C1	NAG	B	797	49.268	49.936	96.936	1.00 61.01
HETATM12028	C2	NAG	B	797	49.691	48.602	96.293	1.00 62.31
HETATM12029	N2	NAG	B	797	48.733	48.188	95.291	1.00 62.72
HETATM12030	C7	NAG	B	797	48.798	48.715	94.079	1.00 63.61
HETATM12031	O7	NAG	B	797	49.868	48.995	93.512	1.00 61.06
HETATM12032	C8	NAG	B	797	47.463	48.951	93.439	1.00 64.40
HETATM12033	C3	NAG	B	797	49.905	47.435	97.253	1.00 61.57
HETATM12034	O3	NAG	B	797	50.543	46.394	96.566	1.00 60.47
HETATM12035	C4	NAG	B	797	50.776	47.922	98.392	1.00 61.34
HETATM12036	O4	NAG	B	797	51.162	46.853	99.231	1.00 59.75
HETATM12037	C5	NAG	B	797	49.921	48.982	99.073	1.00 61.24
HETATM12038	C6	NAG	B	797	50.437	49.402	100.454	1.00 60.99
HETATM12039	O6	NAG	B	797	51.831	49.550	100.437	1.00 58.34
HETATM12040	O5	NAG	B	797	49.878	50.102	98.209	1.00 61.78
HETATM12041	O	HOH		1	69.755	80.399	86.643	1.00 7.73
HETATM12042	O	HOH		2	39.998	46.901	18.457	1.00 10.31
HETATM12043	O	HOH		4	62.220	40.486	27.246	1.00 12.87
HETATM12044	O	HOH		5	64.826	62.571	43.828	1.00 19.31
HETATM12045	O	HOH		6	56.767	36.556	36.335	1.00 21.00
HETATM12046	O	HOH		7	50.245	35.394	15.711	1.00 20.14
HETATM12047	O	HOH		8	78.281	56.483	80.453	1.00 37.18
HETATM12048	O	HOH		9	56.125	73.117	69.619	1.00 19.38
HETATM12049	O	HOH		10	36.083	37.083	46.767	1.00 39.78
HETATM12050	O	HOH		11	59.581	32.583	52.936	1.00 27.38
HETATM12051	O	HOH		12	34.041	50.937	39.008	1.00 20.61
HETATM12052	O	HOH		13	65.320	47.187	62.009	1.00 24.23
HETATM12053	O	HOH		14	31.494	58.838	35.693	1.00 22.60
HETATM12054	O	HOH		15	62.642	72.239	59.850	1.00 23.18
HETATM12055	O	HOH		16	77.995	58.866	78.221	1.00 15.42
HETATM12056	O	HOH		17	58.533	67.745	55.662	1.00 22.30
HETATM12057	O	HOH		18	88.208	29.565	21.093	1.00 49.26
HETATM12058	O	HOH		19	40.525	72.824	73.221	1.00 21.32
HETATM12059	O	HOH		20	48.198	59.827	34.355	1.00 25.55
HETATM12060	O	HOH		21	73.384	76.365	48.426	1.00 33.50
HETATM12061	O	HOH		22	50.583	31.754	30.128	1.00 27.05
HETATM12062	O	HOH		23	31.043	56.428	38.581	1.00 23.41
HETATM12063	O	HOH		24	52.509	59.981	46.771	1.00 25.42
HETATM12064	O	HOH		25	36.878	45.981	19.156	1.00 26.52
HETATM12065	O	HOH		26	65.794	61.426	46.509	1.00 22.37
HETATM12066	O	HOH		27	50.084	61.646	50.977	1.00 25.11
HETATM12067	O	HOH		28	54.775	55.861	63.543	1.00 31.76
HETATM12068	O	HOH		29	80.149	72.731	69.030	1.00 22.40
HETATM12069	O	HOH		30	27.782	60.784	35.598	1.00 29.54
HETATM12070	O	HOH		31	74.208	56.149	72.170	1.00 19.00
HETATM12071	O	HOH		32	82.869	57.914	96.204	1.00 32.13
HETATM12072	O	HOH		33	80.923	58.743	73.558	1.00 27.31
HETATM12073	O	HOH		34	55.022	78.846	65.695	1.00 26.47
HETATM12074	O	HOH		35	69.840	71.834	89.800	1.00 22.74
HETATM12075	O	HOH		36	30.001	58.932	39.011	1.00 25.83
HETATM12076	O	HOH		37	62.208	61.143	103.510	1.00 37.15
HETATM12077	O	HOH		38	57.842	52.910	58.684	1.00 23.27
HETATM12078	O	HOH		39	37.983	42.872	24.658	1.00 20.62
HETATM12079	O	HOH		40	52.081	75.115	70.879	1.00 26.06
HETATM12080	O	HOH		41	72.496	54.302	43.326	1.00 32.87
HETATM12081	O	HOH		42	73.302	69.745	86.804	1.00 26.45
HETATM12082	O	HOH		43	43.663	65.019	34.139	1.00 23.93
HETATM12083	O	HOH		44	66.893	48.699	89.087	1.00 30.37
HETATM12084	O	HOH		45	56.462	68.617	53.861	1.00 24.87
HETATM12085	O	HOH		46	58.082	66.385	58.225	1.00 23.90
HETATM12086	O	HOH		48	25.975	61.038	32.629	1.00 27.79
HETATM12087	O	HOH		49	34.089	59.708	48.959	1.00 28.45
HETATM12088	O	HOH		50	82.210	91.526	102.461	1.00 41.43
HETATM12089	O	HOH		51	29.874	69.711	84.012	1.00 35.20
HETATM12090	O	HOH		52	83.150	70.002	67.331	1.00 33.57
HETATM12091	O	HOH		53	43.509	44.094	56.593	1.00 32.63
HETATM12092	O	HOH		54	38.606	76.598	91.780	1.00 30.60
HETATM12093	O	HOH		55	51.005	36.317	35.795	1.00 39.38
HETATM12094	O	HOH		56	70.432	83.664	85.676	1.00 26.32
HETATM12095	O	HOH		57	35.211	69.922	74.499	1.00 37.11
HETATM12096	O	HOH		58	81.995	70.997	89.633	1.00 28.50

HETATM12097	O	HOH	59	50.463	38.807	22.087	1.00	39.80
HETATM12098	O	HOH	60	47.949	31.885	21.015	1.00	22.69
HETATM12099	O	HOH	61	47.182	54.781	45.141	1.00	20.23
HETATM12100	O	HOH	62	60.983	33.345	50.537	1.00	28.58
HETATM12101	O	HOH	63	65.450	85.673	65.652	1.00	29.90
HETATM12102	O	HOH	64	62.565	62.304	62.410	1.00	16.92
HETATM12103	O	HOH	65	61.679	72.418	49.807	1.00	24.32
HETATM12104	O	HOH	66	79.506	66.115	69.527	1.00	26.96
HETATM12105	O	HOH	68	54.535	64.150	64.525	1.00	19.13
HETATM12106	O	HOH	69	60.608	52.351	58.371	1.00	22.94
HETATM12107	O	HOH	70	51.046	59.344	49.440	1.00	22.26
HETATM12108	O	HOH	72	56.903	55.928	42.618	1.00	21.85
HETATM12109	O	HOH	73	50.482	56.281	62.640	1.00	24.14
HETATM12110	O	HOH	74	83.719	69.898	87.710	1.00	24.93
HETATM12111	O	HOH	75	79.910	80.755	77.636	1.00	24.86
HETATM12112	O	HOH	76	57.730	71.048	70.318	1.00	22.20
HETATM12113	O	HOH	77	65.844	87.314	99.634	1.00	23.32
HETATM12114	O	HOH	78	73.533	63.176	68.120	1.00	17.04
HETATM12115	O	HOH	79	82.010	77.243	76.246	1.00	23.87
HETATM12116	O	HOH	80	57.970	68.804	68.829	1.00	19.26
HETATM12117	O	HOH	81	81.575	64.030	69.005	1.00	27.93
HETATM12118	O	HOH	82	64.683	44.537	33.113	1.00	24.42
HETATM12119	O	HOH	83	46.606	55.961	55.295	1.00	22.83
HETATM12120	O	HOH	84	52.899	58.974	38.346	1.00	18.29
HETATM12121	O	HOH	85	73.770	82.389	80.349	1.00	21.67
HETATM12122	O	HOH	86	44.010	34.967	29.064	1.00	26.14
HETATM12123	O	HOH	87	58.796	62.203	38.296	1.00	38.76
HETATM12124	O	HOH	88	52.117	52.744	34.980	1.00	34.59
HETATM12125	O	HOH	89	57.055	44.447	37.217	1.00	20.82
HETATM12126	O	HOH	90	51.256	34.490	38.049	1.00	33.84
HETATM12127	O	HOH	91	46.866	25.435	39.522	1.00	46.43
HETATM12128	O	HOH	92	46.232	22.556	41.496	1.00	42.39
HETATM12129	O	HOH	93	59.548	45.139	35.000	1.00	42.25
HETATM12130	O	HOH	94	62.857	46.175	65.622	1.00	19.05
HETATM12131	O	HOH	95	55.251	51.600	69.221	1.00	24.07
HETATM12132	O	HOH	96	67.380	57.546	70.835	1.00	28.58
HETATM12133	O	HOH	97	70.645	58.099	73.586	1.00	30.64
HETATM12134	O	HOH	98	74.810	58.797	72.603	1.00	27.25
HETATM12135	O	HOH	99	77.511	55.043	76.924	1.00	26.31
HETATM12136	O	HOH	100	60.609	64.994	69.994	1.00	34.49
HETATM12137	O	HOH	101	61.574	66.028	75.139	1.00	31.31
HETATM12138	O	HOH	102	68.125	68.933	71.197	1.00	32.38
HETATM12139	O	HOH	103	93.361	75.876	61.155	1.00	50.17
HETATM12140	O	HOH	104	92.339	75.801	77.524	1.00	44.12
HETATM12141	O	HOH	105	89.509	76.668	77.238	1.00	36.60
HETATM12142	O	HOH	106	96.453	75.594	77.314	1.00	34.90
HETATM12143	O	HOH	107	83.581	63.013	51.557	1.00	28.63
HETATM12144	O	HOH	108	76.910	56.310	50.467	1.00	28.57
HETATM12145	O	HOH	109	88.046	54.771	55.131	1.00	44.11
HETATM12146	O	HOH	110	80.838	89.466	77.925	1.00	33.60
HETATM12147	O	HOH	111	81.869	77.174	92.013	1.00	26.28
HETATM12148	O	HOH	112	85.641	73.512	93.741	1.00	26.83
HETATM12149	O	HOH	113	88.338	80.641	90.398	1.00	40.73
HETATM12150	O	HOH	114	72.839	75.180	103.334	1.00	31.56
HETATM12151	O	HOH	115	76.390	64.819	106.832	1.00	32.74
HETATM12152	O	HOH	116	70.062	56.424	104.604	1.00	34.31
HETATM12153	O	HOH	117	67.748	54.004	101.069	1.00	38.13
HETATM12154	O	HOH	118	68.759	50.320	98.367	1.00	57.66
HETATM12155	O	HOH	119	84.379	38.809	82.154	1.00	36.63
HETATM12156	O	HOH	120	73.754	50.392	47.910	1.00	21.15
HETATM12157	O	HOH	121	78.379	46.740	34.934	1.00	24.31
HETATM12158	O	HOH	122	63.544	35.488	9.380	1.00	31.34
HETATM12159	O	HOH	123	44.179	34.979	13.105	1.00	25.61
HETATM12160	O	HOH	124	52.909	50.685	14.735	1.00	34.54
HETATM12161	O	HOH	125	50.961	44.497	18.295	1.00	23.10
HETATM12162	O	HOH	126	36.677	57.474	22.449	1.00	29.77
HETATM12163	O	HOH	127	41.507	53.667	24.386	1.00	51.04
HETATM12164	O	HOH	128	27.040	64.555	5.523	1.00	39.18
HETATM12165	O	HOH	129	20.081	69.745	25.535	1.00	36.99
HETATM12166	O	HOH	130	22.434	70.829	16.822	1.00	37.46

HETATM12167	O	HOH	131	41.884	83.942	26.261	1.00	44.34
HETATM12168	O	HOH	132	39.866	65.248	76.576	1.00	25.68
HETATM12169	O	HOH	133	36.727	68.844	86.164	1.00	37.09
HETATM12170	O	HOH	134	62.595	52.028	99.281	1.00	43.29
HETATM12171	O	HOH	135	63.099	64.910	92.518	1.00	26.46
HETATM12172	O	HOH	136	66.993	73.636	91.917	1.00	35.76
HETATM12173	O	HOH	137	63.825	76.390	90.847	1.00	40.25
HETATM12174	O	HOH	138	57.554	81.223	81.797	1.00	49.39
HETATM12175	O	HOH	139	51.439	80.508	87.594	1.00	31.00
HETATM12176	O	HOH	140	50.917	67.304	92.867	1.00	29.73
HETATM12177	O	HOH	141	53.638	67.099	74.968	1.00	27.88
HETATM12178	O	HOH	142	59.142	88.533	56.693	1.00	40.75
HETATM12179	O	HOH	143	58.554	79.052	50.505	1.00	29.32
HETATM12180	O	HOH	144	67.618	71.785	44.131	1.00	24.36
HETATM12181	O	HOH	145	53.907	81.654	47.344	1.00	43.67
HETATM12182	O	HOH	146	53.793	62.777	-3.567	1.00	29.70
HETATM12183	O	HOH	147	64.234	48.230	24.925	1.00	33.58
HETATM12184	O	HOH	148	66.492	30.910	47.228	1.00	29.81
HETATM12185	O	HOH	202	32.619	40.712	51.879	1.00	30.37
HETATM12186	O	HOH	204	43.839	44.592	49.564	1.00	28.20
HETATM12187	O	HOH	206	37.580	57.461	52.650	1.00	27.92
HETATM12188	O	HOH	208	42.183	61.804	55.700	1.00	34.76
HETATM12189	O	HOH	210	39.538	58.414	54.332	1.00	25.41
HETATM12190	O	HOH	212	48.967	56.509	65.352	1.00	44.84
HETATM12191	O	HOH	214	71.887	58.634	75.646	1.00	28.47
HETATM12192	O	HOH	216	71.427	55.779	72.292	1.00	35.84
HETATM12193	O	HOH	218	70.822	58.005	77.949	1.00	30.76
HETATM12194	O	HOH	220	69.998	78.732	78.356	1.00	22.45
HETATM12195	O	HOH	222	71.248	86.759	79.600	1.00	38.95
HETATM12196	O	HOH	224	56.680	84.166	88.555	1.00	37.10
HETATM12197	O	HOH	226	57.373	80.916	86.390	1.00	49.30
HETATM12198	O	HOH	228	75.894	84.232	74.472	1.00	28.54
HETATM12199	O	HOH	230	75.429	94.083	66.254	1.00	48.76
HETATM12200	O	HOH	232	56.996	84.593	55.734	1.00	33.84
HETATM12201	O	HOH	234	64.723	80.578	51.996	1.00	38.72
HETATM12202	O	HOH	236	51.212	78.791	54.717	1.00	25.78
HETATM12203	O	HOH	238	48.051	75.518	66.773	1.00	29.08
HETATM12204	O	HOH	240	41.990	72.224	71.279	1.00	32.98
HETATM12205	O	HOH	242	39.086	89.203	74.974	1.00	26.27
HETATM12206	O	HOH	244	81.152	36.150	29.584	1.00	33.69
HETATM12207	O	HOH	245	78.600	49.867	34.219	1.00	26.08
HETATM12208	O	HOH	246	51.499	59.265	-6.134	1.00	34.07
HETATM12209	O	HOH	247	46.560	55.997	30.696	1.00	26.99
HETATM12210	O	HOH	248	51.695	64.028	29.990	1.00	23.45
HETATM12211	O	HOH	249	50.152	59.677	36.121	1.00	27.45
HETATM12212	O	HOH	250	53.824	56.732	35.090	1.00	31.08
HETATM12213	O	HOH	251	52.542	60.702	34.717	1.00	33.68
HETATM12214	O	HOH	252	57.043	64.788	39.705	1.00	38.98
HETATM12215	O	HOH	253	54.472	63.858	40.439	1.00	29.74
HETATM12216	O	HOH	254	47.192	45.492	35.067	1.00	38.53
HETATM12217	O	HOH	255	42.136	51.046	33.979	1.00	37.48
HETATM12218	O	HOH	256	48.624	43.656	28.724	1.00	35.99
HETATM12219	O	HOH	257	53.099	40.645	24.972	1.00	24.40
HETATM12220	O	HOH	258	49.300	44.995	31.514	1.00	35.06
HETATM12221	O	HOH	259	46.593	49.097	33.004	1.00	45.88
HETATM12222	O	HOH	260	44.469	49.208	32.906	1.00	39.68
HETATM12223	O	HOH	261	41.442	46.842	26.549	1.00	26.59
HETATM12224	O	HOH	262	41.277	51.017	31.045	1.00	40.35
HETATM12225	O	HOH	263	39.106	54.477	24.710	1.00	57.22
HETATM12226	O	HOH	264	40.193	61.253	24.178	1.00	27.83
HETATM12227	O	HOH	265	43.286	61.838	21.847	1.00	47.16
HETATM12228	O	HOH	266	35.232	59.526	15.974	1.00	33.54
HETATM12229	O	HOH	267	38.799	65.129	17.277	1.00	32.63
HETATM12230	O	HOH	268	45.335	68.698	15.891	1.00	39.70
HETATM12231	O	HOH	269	47.617	70.146	23.139	1.00	31.12
HETATM12232	O	HOH	270	34.678	53.242	13.234	1.00	31.57
HETATM12233	O	HOH	271	29.153	73.980	30.341	1.00	43.04
HETATM12234	O	HOH	272	28.449	76.672	29.593	1.00	31.36
HETATM12235	O	HOH	273	34.907	79.293	33.911	1.00	38.34
HETATM12236	O	HOH	274	45.725	61.512	35.273	1.00	22.54

HETATM12237	O	HOH	275	39.889	61.856	39.172	1.00	22.94
HETATM12238	O	HOH	276	41.209	65.035	39.137	1.00	33.27
HETATM12239	O	HOH	277	27.132	67.569	7.800	1.00	44.95
HETATM12240	O	HOH	278	24.932	69.691	8.276	1.00	47.36
HETATM12241	O	HOH	279	35.912	64.257	50.788	1.00	53.43
HETATM12242	O	HOH	280	60.943	79.936	49.167	1.00	27.23
HETATM12243	O	HOH	281	65.094	67.150	70.063	1.00	29.89
HETATM12244	O	HOH	282	67.023	65.591	68.876	1.00	32.35
HETATM12245	O	HOH	283	64.065	65.176	70.832	1.00	43.75
HETATM12246	O	HOH	284	60.509	67.789	68.395	1.00	22.45
HETATM12247	O	HOH	285	57.398	66.633	70.380	1.00	33.83
HETATM12248	O	HOH	286	58.553	64.183	70.306	1.00	45.07
HETATM12249	O	HOH	287	28.754	79.787	24.414	1.00	41.13
HETATM12250	O	HOH	288	27.759	71.284	45.936	1.00	47.91
HETATM12251	O	HOH	289	23.927	72.799	35.757	1.00	51.30
HETATM12252	O	HOH	290	29.955	73.971	39.463	1.00	36.46
HETATM12253	O	HOH	291	25.897	53.293	41.801	1.00	33.14
HETATM12254	O	HOH	292	23.797	50.547	38.975	1.00	31.04
HETATM12255	O	HOH	293	26.779	49.888	39.145	1.00	36.09
HETATM12256	O	HOH	294	27.839	58.254	37.402	1.00	26.51
HETATM12257	O	HOH	295	29.803	58.215	43.171	1.00	23.11
HETATM12258	O	HOH	296	29.469	60.011	41.576	1.00	34.44
HETATM12259	O	HOH	297	32.193	40.552	38.804	1.00	45.78
HETATM12260	O	HOH	298	33.709	34.220	29.537	1.00	32.56
HETATM12261	O	HOH	299	39.324	47.614	21.483	1.00	33.19
HETATM12262	O	HOH	300	33.791	44.525	25.455	1.00	34.40
HETATM12263	O	HOH	301	34.210	32.867	17.969	1.00	23.95
HETATM12264	O	HOH	302	23.518	42.390	14.824	1.00	33.39
HETATM12265	O	HOH	303	28.153	45.492	6.361	1.00	30.26
HETATM12266	O	HOH	304	26.608	48.522	7.079	1.00	29.68
HETATM12267	O	HOH	305	38.605	48.045	-0.774	1.00	48.54
HETATM12268	O	HOH	306	36.442	48.639	-1.382	1.00	51.66
HETATM12269	O	HOH	307	33.276	49.992	5.200	1.00	34.73
HETATM12270	O	HOH	308	34.560	28.406	-1.463	1.00	56.41
HETATM12271	O	HOH	309	46.509	52.025	11.464	1.00	23.72
HETATM12272	O	HOH	310	40.013	51.475	8.495	1.00	39.95
HETATM12273	O	HOH	311	63.562	52.804	2.547	1.00	38.56
HETATM12274	O	HOH	312	66.967	44.809	5.191	1.00	43.64
HETATM12275	O	HOH	313	76.726	33.117	24.145	1.00	31.10
HETATM12276	O	HOH	314	45.201	27.566	28.129	1.00	32.65
HETATM12277	O	HOH	315	62.406	37.653	31.681	1.00	33.49
HETATM12278	O	HOH	316	67.033	50.301	26.622	1.00	28.28
HETATM12279	O	HOH	317	48.216	37.093	36.293	1.00	27.89
HETATM12280	O	HOH	318	36.680	27.536	26.666	1.00	43.58
HETATM12281	O	HOH	319	42.690	28.000	29.436	1.00	29.76
HETATM12282	O	HOH	320	47.256	39.106	52.493	1.00	27.93
HETATM12283	O	HOH	321	58.126	34.638	53.518	1.00	32.97
HETATM12284	O	HOH	322	64.011	42.183	54.777	1.00	26.52
HETATM12285	O	HOH	323	57.427	64.632	46.535	1.00	24.28
HETATM12286	O	HOH	324	56.723	63.053	51.391	1.00	23.85
HETATM12287	O	HOH	325	67.474	64.172	35.795	1.00	26.71
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HETATM12289	O	HOH	327	77.532	52.988	43.002	1.00	35.17
HETATM12290	O	HOH	328	73.665	41.787	70.523	1.00	23.80
HETATM12291	O	HOH	329	74.243	39.155	71.502	1.00	37.50
HETATM12292	O	HOH	330	65.915	51.647	74.886	1.00	33.80
HETATM12293	O	HOH	331	63.198	51.539	76.002	1.00	44.63
HETATM12294	O	HOH	332	68.579	56.719	74.627	1.00	36.47
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HETATM12297	O	HOH	335	53.783	65.446	77.107	1.00	35.33
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HETATM12324	O	HOH		362	51.605	65.693	106.423	1.00	47.01
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HETATM12363	HG	HG	Y	303	42.410	43.821	32.702	1.00	59.73
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HETATM12365	HG	HG	Y	302	36.321	52.198	31.093	1.00	103.48
HETATM12366	HG	HG	Z	303	73.145	77.979	72.298	1.00	63.81
HETATM12367	HG	HG	Z	301	63.582	84.279	71.535	1.00	65.41
HETATM12368	HG	HG	Z	302	64.171	83.832	74.081	1.00	106.14
END									

Column 2 lists a number for the atom in the structure.
Column 3 lists the element whose coordinates are measured. The first letter in the column defines the element.
Column 4 lists the type of amino acid.
Column 5 lists a number for the amino acid in the structure.

Columns 6-8 list the crystallographic coordinates X, Y, and Z respectively. The crystallographic coordinates define the atomic position of the element measured.
Column 9 lists an occupancy factor that refers to the fraction of the molecules in which each atom occupies the position specified by the coordinates. A value of "1" indicates that each atom has the same conformation, i. e., the same position, in all molecules of the crystal.
Column 10 lists a thermal factor "B" that measures movement of the atom around its atomic center.

Sequence Listing

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aacacacagt gggtcacatg gtcaccagtg ggtcataaat tggcatatgt ttggaacaat 420

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Ile Ser Asp His Glu Tyr Leu Tyr Lys Gln Glu Asn Asn Ile Leu Val
        35                  40                  45

Phe Asn Ala Glu Tyr Gly Asn Ser Ser Val Phe Leu Glu Asn Ser Thr
    50                  55                  60

Phe Asp Glu Phe Gly His Ser Ile Asn Asp Tyr Ser Ile Ser Pro Asp
65                  70                  75                  80
Gly Gln Phe Ile Leu Leu Glu Tyr Asn Tyr Val Lys Gln Trp Arg His
                85                  90                  95

Ser Tyr Thr Ala Ser Tyr Asp Ile Tyr Asp Leu Asn Lys Arg Gln Leu
            100                 105                 110

Ile Thr Glu Glu Arg Ile Pro Asn Asn Thr Gln Trp Val Thr Trp Ser
        115                 120                 125
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Pro Val Gly His Lys Leu Ala Tyr Val Trp Asn Asn Asp Ile Tyr Val
130                 135                 140

Lys Ile Glu Pro Asn Leu Pro Ser Tyr Arg Ile Thr Trp Thr Gly Lys
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Glu Asp Ile Ile Tyr Asn Gly Ile Thr Asp Trp Val Tyr Glu Glu Glu
                165                 170                 175

Val Phe Ser Ala Tyr Ser Ala Leu Trp Trp Ser Pro Asn Gly Thr Phe
            180                 185                 190

Leu Ala Tyr Ala Gln Phe Asn Asp Thr Glu Val Pro Leu Ile Glu Tyr
        195                 200                 205

Ser Phe Tyr Ser Asp Glu Ser Leu Gln Tyr Pro Lys Thr Val Arg Val
    210                 215                 220

Pro Tyr Pro Lys Ala Gly Ala Val Asn Pro Thr Val Lys Phe Phe Val
225                 230                 235                 240

Val Asn Thr Asp Ser Leu Ser Ser Val Thr Asn Ala Thr Ser Ile Gln
                245                 250                 255

Ile Thr Ala Pro Ala Ser Met Leu Ile Gly Asp His Tyr Leu Cys Asp
            260                 265                 270

Val Thr Trp Ala Thr Gln Glu Arg Ile Ser Leu Gln Trp Leu Arg Arg
        275                 280                 285

Ile Gln Asn Tyr Ser Val Met Asp Ile Cys Asp Tyr Asp Glu Ser Ser
    290                 295                 300

Gly Arg Trp Asn Cys Leu Val Ala Arg Gln His Ile Glu Met Ser Thr
305                 310                 315                 320

Thr Gly Trp Val Gly Arg Phe Arg Pro Ser Glu Pro His Phe Thr Leu
                325                 330                 335

Asp Gly Asn Ser Phe Tyr Lys Ile Ile Ser Asn Glu Glu Gly Tyr Arg
            340                 345                 350

His Ile Cys Tyr Phe Gln Ile Asp Lys Lys Asp Cys Thr Phe Ile Thr
        355                 360                 365

Lys Gly Thr Trp Glu Val Ile Gly Ile Glu Ala Leu Thr Ser Asp Tyr
    370                 375                 380

Leu Tyr Tyr Ile Ser Asn Glu Tyr Lys Gly Met Pro Gly Gly Arg Asn
385                 390                 395                 400

Leu Tyr Lys Ile Gln Leu Ile Asp Tyr Thr Lys Val Thr Cys Leu Ser
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Cys Glu Leu Asn Pro Glu Arg Cys Gln Tyr Tyr Ser Val Ser Phe Ser
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Gln Met Ile Leu Pro Pro His Phe Asp Lys Ser Lys Lys Tyr Pro Leu
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Leu Leu Asp Val Tyr Ala Gly Pro Cys Ser Gln Lys Ala Asp Thr Val
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Phe Arg Leu Asn Trp Ala Thr Tyr Leu Ala Ser Thr Glu Asn Ile Ile
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Ile Glu Ala Ala Arg Gln Phe Ser Lys Met Gly Phe Val Asp Asn Lys
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Pro Val Ser Arg Trp Glu Tyr Tyr Asp Ser Val Tyr Thr Glu Arg Tyr
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705                 710                 715                 720

Ile Tyr Thr His Met Ser His Phe Ile Lys Gln Cys Phe Ser Leu Pro
                725                 730                 735
```

Claims

1. A crystal of the extracellular domain of mammalian DPP-IV.

2. The crystal of claim 1, characterized as having an orthorhombic space group of $P2_12_12_1$ and one homodimer of DPP-IV in the asymmetric unit.

3. The crystal of claims 1 and 2, wherein the crystal has unit cell dimensions of:

   a is from 63 Å to 70 Å;
   b is from 66 Å to 70 Å;
   c is from 416 Å to 424 Å;

   and a $P2_12_12_1$ symmetry.

4. The crystal of claims 1 to 3, **characterized by** the atomic structure coordinates of Table 4.

5. A co-crystal of the extracellular domain of mammalian DPP-IV and a ligand bound to its active site.

6. The crystal of claim 5, characterized as having an orthorhombic space group of $P2_12_12_1$ and one homodimer of DPP-IV in the asymmetric unit.

7. The co-crystal of claim 6, wherein the co-crystal has unit cell dimensions of:

   a is from 63 Å to 70 Å;
   b is from 66 Å to 70 Å;
   c is from 416 Å to 424 Å;

and a $P2_12_12_1$ symmetry.

8. A co-crystal of the extracellular domain of mammalian DPP-IV and a ligand bound to an allosteric binding site.

9. A co-crystal of the extracellular domain of mammalian DPP-IV and $HgCl_2$.

10. A method for crystallizing mammalian DPP-IV, the method comprising

(a) providing a buffered, aqueous solution of pH 7 to 8.5 with a concentration of 7 mg/ml to 22 mg/ml of the extracellular domain of mammalian DPP-IV; and
(b) growing crystals by vapor diffusion using a buffered reservoir solution with between 10% and 30% PEG, between 10% and 20% glycerol, wherein PEG has an average molecular weight between 1000 and 20000.

11. The method according to claim 10, wherein the extracellular domain of mammalian DPP-IV of step (a) is produced in P. pastoris and then deglycosylated.

12. A method for co-crystallizing mammalian DPP-IV and an active site ligand, the method comprising

(a) providing a buffered, aqueous solution of pH 7 to 8.5 with a concentration of 7 mg/ml to 22 mg/ml of the extracellular domain of mammalian DPP-IV;
(b) adding a molar excess of the active site ligand to the aqueous solution of mammalian DPP-IV;
(c) growing crystals by vapor diffusion using a buffered reservoir solution with between 10% and 30% PEG, between 10% and 20% glycerol, wherein PEG has an average molecular weight between 1000 and 20000.

13. The method according to claim 12, wherein the extracellular domain of mammalian DPP-IV of step (a) is produced in P. pastoris and then deglycosylated.

14. A crystal produced by the methods according to claims 10 to 13.

15. A method for determining the three-dimensional structure of a crystallized extracellular domain of mammalian DPP-IV to a resolution of 3.5Å to 2.1Å or better, the method comprising

(a) crystallizing an extracellular domain of mammalian DPP-IV; and
(b) analysing the extracellular domain of mammalian DPP-IV by X-ray diffraction to determine the three-dimensional structure of the crystallized extracellular domain of mammalian DPP-IV, whereby the three-dimensional structure of a crystallized extracellular domain of mammalian DPP-IV is determined to a resolution of 3.5Å to 2.1Å or better.

16. A machine-readable data storage medium comprising a data storage material encoded with machine readable data which, when using a machine programmed with instructions for using said data, displays a graphical three-dimensional representation of a molecule or molecular complex comprising at least a portion of the extracellular domain of mammalian DPP-IV comprising the amino acids of SEQ ID NO:2, the extracellular domain comprising the ligand binding active site being defined by a set of points having a root mean square deviation of less than about 1.5Å from points representing the backbone atoms of said amino acids as represented by structure coordinates listed in Table 4.

17. A method for identifying a compound that interacts with DPP-IV, comprising the steps of

(a) generating a three-dimensional model of DPP-IV using the structure coordinates listed in Table 4, a root mean square deviation from the backbone atoms of said amino acids of less than 1.5Å; and
(b) employing said three-dimensional model to design or select a compound that interacts with DPP-IV.

18. The method according to claim 17, further comprising the steps of

(c) obtaining the identified compound; and
(d) contacting the obtained compound with DPP-IV in order to determine the effect the compound has on DPP-IV activity.

19. The method according to claims 17 and 18, wherein the compound interacts with the active site of DPP-IV.

20. The method according to claims 17 and 18, wherein the compound interacts with an allosteric binding site of DPP-IV.

21. The method according to claims 17 and 20, wherein the compound is an inhibitor of DPP-IV activity.

22. The method according to claims 17 to 21, wherein the method is a computer-assisted method.

23. A compound identified by the methods according to claims 17 to 22.

24. A pharmaceutical composition comprising the compound of claim 23 and a pharmaceutically acceptable carrier.

25. A compound according to claim 23 for use as a therapeutic active substance, in particular for the treatment of diabetes type I, diabetes type II, IGT, obesity and cancer.

26. An isolated nucleic acid sequence encoding the soluble extracellular domain of DPP-IV comprising the nucleotide sequence of SEQ ID NO:1.

27. A nucleic acid construct comprising an expression vector and the nucleic acid sequence according to claim 26.

28. A host cell transformed with the nucleic acid construct according to claim 27.

29. A method of producing the soluble extracellular domain of DPP-IV comprising culturing the host cell of claim 28 under conditions permitting the expression of the soluble extracellular domain of DPP-IV by the host cell.

30. The method according to claim 29, wherein the host cell is P. pastoris.

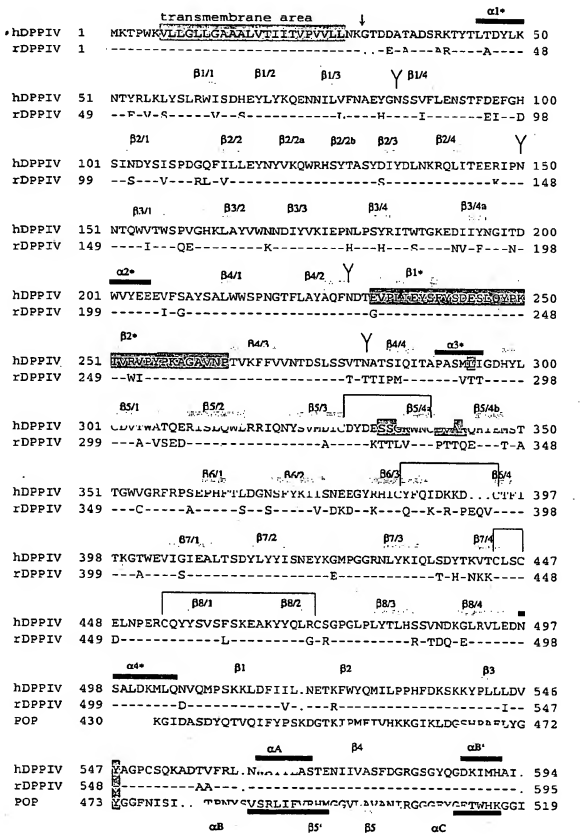
31. A polypeptide comprising the soluble extracellular domain of DPP-IV as set forth in SEQ ID NO:2.

32. Use of a compound according to claim 23 for the manufacture of a medicament for the treatment of diabetes type-I, diabetes type-II, IGT, obesity and cancer.

33. Use of a crystal or a co-crystal according to claims 1 to 9 for the identification and/or design of inhibitors of DPP-IV activity.

34. The novel crystals, methods, compounds, compositions and uses substantially as herein before described especially with reference to the foregoing Examples.

Figure 1



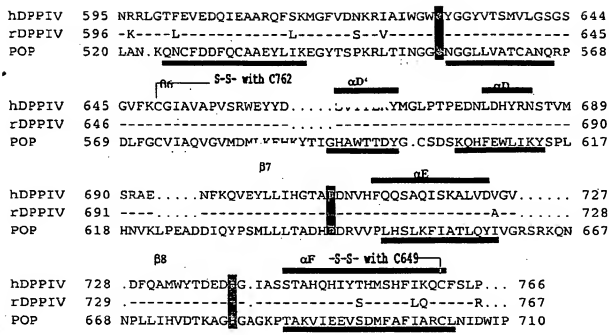


Figure 2

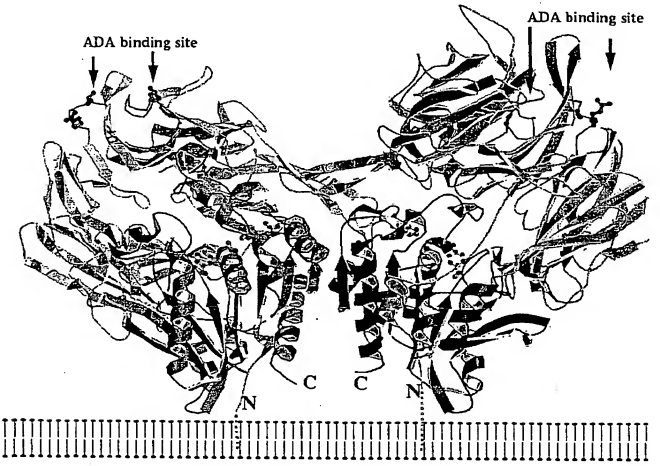


Figure 3 A

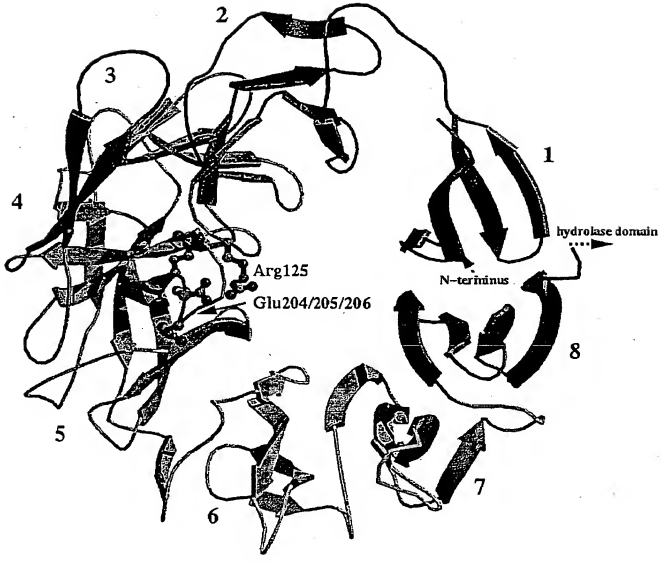


Figure 3B

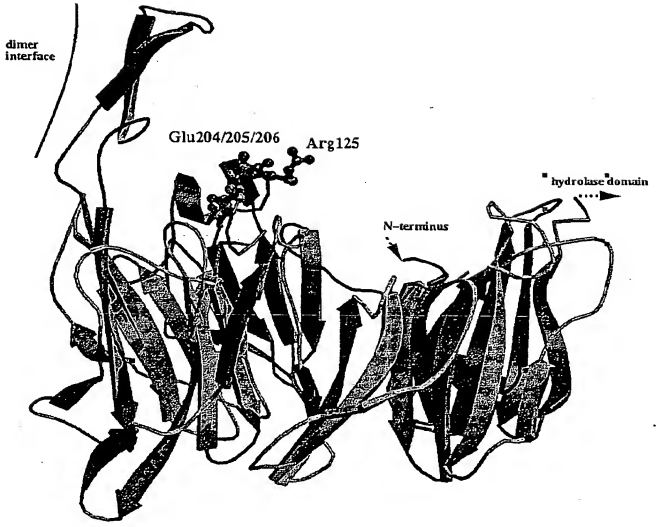


Figure 3C

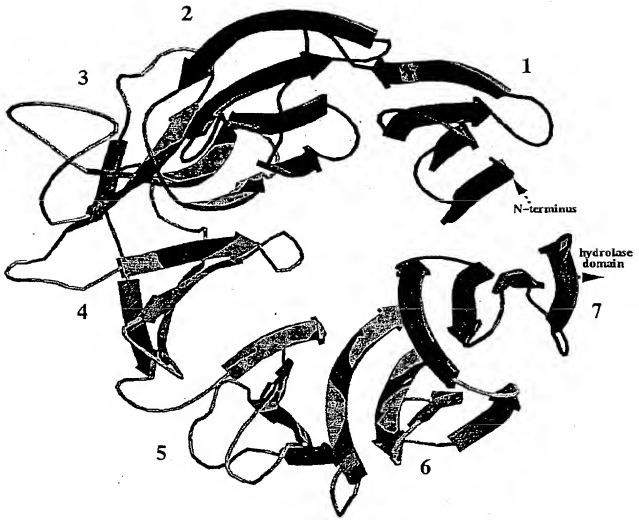


Figure 4

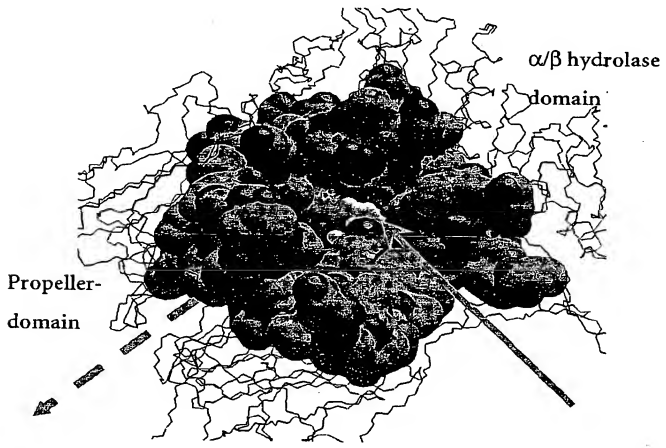
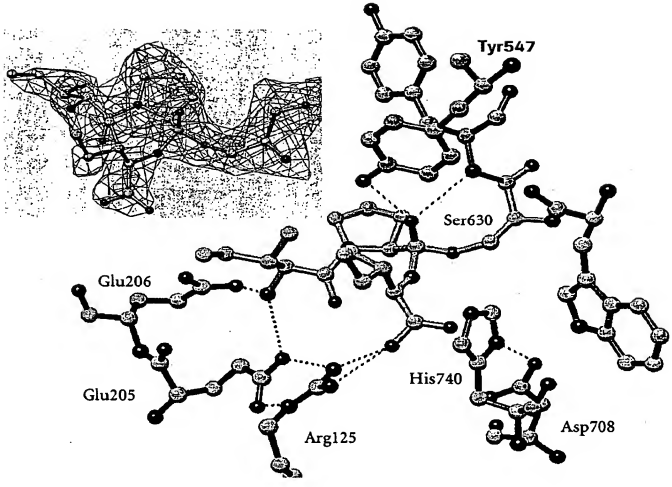


Figure 5



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Application Number
EP 03 02 6169

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Munich	26 March 2004	Lüdemann, S

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